Watson
N-(4)

317

Watson N-4

Tri

Catalogue of Botanical Collection

made in Nevada and Utah, in 1867-9, by
Sereno Watson, Bot. U.S. Geol. Expl. 40th Par.,
Clarence King in charge.

By Sereno Watson.

A single spec^{n}. so labeled in Herb. Gray which is equivalent to one spec^{n} of C. douglasii – The Rocky Mt. C. Douglasii has more narrowly linear leaves.–

3.

4.

1.

2.

C. calycina, Nutt. C. ochotensis, Pall. & C. sibirica, Nutt., differ only in degree of development of the petals & on one species –

Ranunculaceae.

3.— Clematis Wyethii, Nutt. Evidently the plant of Wyeth's collection, described by Nuttall. It closely resembles C. Douglasii, Hook., and may prove a variety of it. Stem from 1½° to 2½° high; flower with nearly straight calyx lobes, upon a long naked peduncle which is erect & elongates in fruit. Variable in pubescence.

a.) July 3, 1869. Uintah Mts., Utah, Silver Creek cañon. In fruit. 5 sp.

b.) " 5, " " " " Provo cañon. In flower. 6 "

c.) " 26, " Wahsatch Mts., Utah, near Ironship. In fruit. 3 "

(Nutt., Jour. Acad. Phil. VII. 6.)
Trg., Fl. I. 6.

4.— C. ligusticifolia, Nutt., var. B. brevifolia, Trg. Frequent on stream banks in the lower cañons of the W. Humboldt Mts. and found in a single locality in the E. Humboldt Mts. — uniformly the variety with broad, subcordate 3-lobed leaflets. The narrower leaved eastern form, or an approach to it, was met with in S.E. Idaho. (Trg., Fl. I. 9.)

a.) Sept. 4, 1867. W. Humboldt Mts., Nev., Wright's cañon. (W. W. Bailey.) Fruit. 5 sp.

b.) " 9, " " " Unionville. Staminate. 4 "

c.) " 19, " " " Santa Clara cañon. Both sexes. 5 "

d.) Aug. 20, 1868. E. Humboldt Mts., west base, Nev. Both sexes. 6 "

e.) Oct. 2, 1868. City of Rocks, Idaho. With narrow leaved form. 2 "

1.— C. alpina, Mill. Is this, or not, var. Ochotensis? Find spec. of C. alpina.

a.) July 13, 1869. Wahsatch Mts., Utah, Cottonwood cañon. In flower. 9,000 ft. alt. 14 sp.

b.) " 14, " " " Cottonwood Lake, rocks. In fruit. 9,500 ft. alt. 3 "

2.— C. verticillaris, DC., var. Columbiana. Wooded mountain sides. Collected by Wyeth. Not differing from the eastern form, except in the somewhat smaller narrower-sepaled flowers. (Clematis Columbiana, Trg. Fl. I. 11.)
(Atragene Columbiana, Nutt. Jour. Acad. Phil. VII. 7.) ~~Trg. Fl. I. 11.~~

a.) June 24, 1869. Wahsatch Mts., Utah, near Parley's Park. Sterile stems. 7,500 ft. alt. 2 sp.

b.) July 7, " Uintah Mts., Utah, near Duchesne river. " " 9,000 ft. alt. 3 "

c.) " 10, " Wahsatch Mts., N. Fork of Provo river. In fruit. 7,000 ft. alt. 5 "

d.) Aug. 14, " " " near Parley's Park. In flower & fruit. 7,000 ft. alt. 6 "

Identical with spec. in Herb. Gray from Herb. Hook. Bor. Americ. (Ajan)

A. Cornuta does not seem to have been met with W. of Rocky Mts. - the plant of Lyall's Oregon collection being A. Fendleri. - Learn my reader in "aiyr. It is the "A. heterophyllum, Nutt." of Nuttall's collection.

Now on in Herb. Torr

Ask Torrey about "A. nigricorpus, Torr. - Fr. 6)" = Fendleri?

Was not the A. Baldwinii of Drummond's collection (v.i. Hook. Fl. Bor. Am. I. 5.) the same as this? perhaps A. pumifera - Cf. also with A. decapetala with which H. finds M. Steuart most frequently confounded

Seems certainly distinct from A. decapetala. A. laevigata, Gray from Chili is the same.

Resembles spec. of A. Carolineana (= A. decapetala) from Schweinitz Herb., (Nuttall) & Fendler's from "between Little Wichita & Big Washita".

5.– Thalictrum alpinum, L. Rare. (Tbg. 71. I. 39.)

Sept. 10th 1868. Clover Mts., Nev. Damp, grassy bank, with Salix —? and vaccinium —? In fruit. 10,000 ft. alt. 11 Sp.

6.– T. sparsiflorum, Turcz. A low, single flowered form. No. 10 of Dr. Vasey's Colorado collection, 1868. ("T. reflexum, mihi") is ~~apparently~~ but a rather large leaved variety of this species. (T. clavatum, Hook. Fl. Bor. I. 2, Tbg. 71. I. 3).)

July 7, 1869. Shaded river bottom, Provo valley, Uintah Mts. 8,000 ft. alt. 2 Sp.

7.– T. Fendleri, Eng. Frequent in the Wahsatch Mts. – rare westward. (Pl. Fendl. 5. Pl. Wright II.).)

a.) Aug. 6, 1868. – E. Humboldt Mts., Nev. High cañon, west side. In fruit. Stout, 3°. 9,000 ft. alt. 3 Sp.

b.) June 23, 1869. – Wahsatch Mts., Utah. Parley's Park, creek bank. Pistillate. 6,000 ft. – 1 "

c.) June 24, " 29 " Cañon near Parley's Park. Both sexes. 7,500 ft. 4 "

9.– T. A doubtful species. Form of T. Fendleri, with characters inclining to the ~~fruit~~ Substitute, & ~~a~~ Remarkably long leaves. A close approach to T. dioicum.

July 9, 1869. Wahsatch Mts., Utah. Provost cañon, river bank. 5,000 ft. alt. 1 Sp.

10.– T. A doubtful species, – Form of T. Fendleri

Aug. 3, 1869. Uintah Mts., Utah. Bear river – cañon, rocky ridge. In fruit. 8,500 ft. alt. 2 Sp.

11.– Anemone multifida, Poir. Sepals blue, lighter within. Hook. Fl. Bor. I.). Tbg. 71. I. 13. 7orr. N. Y. 71. I. 9. b 2.)

a.) Aug. 28, 1868. E. Humboldt Mts., Nev. Rocky slope. In fruit 10,000 ft. alt. 2 Sp.

b.) Sept. 3, " Clover Mts., Nev. – " " " " " " 7 "

c.) July 6, 1869. Uintah Mts., Utah. Rocky ridge overlooking the Duchesne. In flower. 10,000 ft. alt. 9 "

d.) July 7, " " " " Head of fork of the Provo. In flower. 9,000 ft. 4 "

e.) Aug. 2, " " " " Bear river cañon. Rocks. Fruit. 9,000 ft. 6 "

f.) " 3, " " " " " " Peak. In flower. 12,000 ft. 2 "

g.) " 10, " " " " " " near peak. Fruit 11,000 ft. 8 "

12.– A. A doubtful species. = A. multifida in a stunted form, with leaves of the leaves, shorter + ~~more or~~ broader lobes crowded.

June 12, 1869. Stansbury Island, Salt Lake. Rocks. In fruit. 4,200 ft. 25 Sp.

13.

14

Cf.

15

This is rather R. aquatilis, L. subaquatilis, DC. – the European + asiatic forms (R. eximius, Gibt., R. divaricatus, Schrk) having a with deflexed laminæ & the segments of the leaves, while in all the american specimens in Herb. Gray + Eaton they are always filiform. The fruit of this & of var. trichophyllus varies in form of hispidum & acutum.

16.

var. brachypus, Torr! is a short pubescent form of this var.

17.

R. limosus, Nutt.! is hairy pubescent, leaves ½' in diam., , with a close head of short pale beaked achenia, pubescent – about 3' high. – nearly the same from the Platte plains

Flowers annual (= γ. of HK. 71. ~~(var. 1)~~

13.– Myosurus minimus, L. (Trg. Pl. I. 25. Gr. Gen. I. 26, t. 8.)

June 3, 1869. Meadow at mouth of Jordan river, Utah. In fruit. 9 sp.

14.– M. aristatus, Benth. The ordinary starved specimens, growing under sagebrush, have short, few carpeled heads. Under favoring circumstances, it sends up numerous subdecumbent scapes, with linear many-carpeled heads, as in M. minimus.

(Walp. Ann. I. 7.)

a.) Apr. 4, 1868.– Sage plain near Carson City, Nev. 20 sp.

b.) " 23, " Bank of "Cold Spring", near Carson City, Nev. 6 "

c.) June 3, 1869. Meadow at mouth of Jordan river, Utah. 4 "

d.) " 14, " Sandy shore of Stansbury Island, Salt Lake. 3 "

15.– Ranunculus divaricatus, Schrank.? The American specimens of this species in Herb. Eaton have the segments of the leaves much longer & more delicate than in an authentic specimen from J. G. Baker. It is not easily distinguishable from R. aquatilis, L., var. trichophyllus, except in their extreme forms, when in the one the leaves are petioled, parted mostly by threes, segments long filiform – in the other, palmately parted from a very short petiole, segments shorter & more rigid. The fruit may give more positive differences, – here glabrous & beaked, there somewhat hispid & obtuse.

~~a.) July 26, 1869. Truckee River, near Glendale, Nev. (W. W. Bailey.)~~ ~~4 sp.~~

a.) Sept. 8, 1868. Stream in Secret valley, Nev. 7 sp.

b.) May 31, 1869. Jordan river, Utah. Near Salt Lake City. 6 "

~~d.) July 26, 1869. Silver creek, Parley's Park, Utah.~~ ~~6~~

16.– R. aquatilis, L. var. trichophyllus, Chaix.

a.) July 16, 1867. Truckee River, near Glendale, Nev. (W. W. Bailey.) 5 sp.

b.) May 9, 1868. Stream in meadow near Glendale, Nev. 4 "

c.) Sept. 1, 1868. Stream in Ruby Valley, ~~Utah~~ Nev. 5 "

d.) July 26, 1869. Silver creek, Parley's Park, Utah. 6 "

17.– R. multifidus, Ph. Rare.

Aug. 16, 1869. Weber River bottom, near Coalville, Utah. 17 sp.

18.– Ranunculus alismaefolius, Geyer., var. minor. montanus Identical with specimens of Dr. Parry & Dr. Vasey from the Rocky Mts., & forming a well marked ~~constant~~ variety. A span to a foot high, erect or decumbent; leaves entire, ovate to lanceolate, narrowing to linear lanceolate above, opposite at the parting of the branches, with occasionally a pair at the central peduncle; achenia slightly flattened, short-beaked. No specimens, indeed, show the "long, straight beak" which mainly distinguishes R. alismaefolius from R. Flammula.

a.) Aug. 27, 1869. E. Humboldt Mts., Nev. Shore of mountain lake. 9,000 ft. alt. 16 sp.

b.) July 6, 1869. Uintah Mts., Utah. Fork of Provo canon. 9,000 ft. 10 "

19.– R. Flammula, L., var. reptans. Rare.

Aug. 11, 1869. Bear River canon, Uintah Mts., Utah. 8,000 ft. 12 sp.

20.– R. Cymbalaria, Pk. The most abundant species of the genus, preferring subsaline or alkaline soils. 4-6,000 ft. alt. (Pk. Fl. 392, Hook. Fl. Bor. Am. I. 11, Torr. Fl. I. 17.)

a.) Aug. 5, 1869. Soda Lake, in Carson desert, Nev. 5 sp.

b.) Sept. 5, " Humboldt meadow, near Oreana, Nev. 2 "

c.) Oct. " Stream bank, Unionville, Nev. (W. W. Bailey.) 1 "

d.) June 8, 1869. Same locality. 5 "

e.) " 11, " Valley, near Unionville, Nev. 2 "

f.) July 1, " Reese river valley, near the Humboldt, Nev. 4 "

g.) " 11, " & Aug 1, " Ruby Valley, Nev. 5 "

h.) ~~June~~ May 17, 1869. Stream bank, near Salt Lake City, Utah. 2 "

i.) " 19, " City Creek canon, " " " 3 "

21.– R. affinis, R. Br., var. B., Hook. Agreeing perfectly with Hooker's description & figure. This species is carried by him in his "Distribution of Arctic Plants" into R. auricomus, L. (Hook. Fl. Bor. Am. I. 12, t. 6. Torr. Fl. I. 18.)

a.) July 3, 1869. Creek bank, Kamas prairie, Uintah Mts., Utah. 6,000 ft. 25 sp.

b.) " 5, " Meadow, upper Provo canon, " " 7,500 ft. 3 "

c.) " 14, " Cottonwood Canon, Wahsatch Mts., Utah 9,000 ft. 2 "

d.) Aug. 2 " Bear River canon, Uintah Mts. 9,000 ft. 1 "

23. R. accleratus, L.

a.) July 11, 1868. Ruby Valley, Nev. 4 sp.

b.) Oct. 4, " Pilot Spring, Salt Lake Valley, Utah. 3 "

c.) " 8, " Near Bear River, " " " 2 "

d.) May 31, 1869. Jordan Valley, near Salt Lake City. 3 "

27 R. ~~reptans, L.~~ Stet Flowers small.

a.) Aug. 20, 1868. E. Humboldt Mts., Huntington Valley, Nev. 6,000 ft. 5 sp.

b.) Sept. 22, " Thousand Spring Valley, Nev. " 1 "

c.) June 22, 1869. Wahsatch Mts., Parley's canon. Utah " 3 "

d.) " 23, " " " " Parley's Park, " " 1 "

28 e.) May 8, 1868. Near Carson city, Nev. An early spring form. 4,500 ft. 4 "

29. R. macrophyllus, Schecle. Stems stout, erect, tall, & showing no tendency to throw out runners, & early & laterous. Flowers large & bright yellow. Beak long, straight, equalling the achenium. Calyx

July 14, 1869. Cottonwood canon, Wahsatch Mts. Utah. Muddy bank of creek. 2° high. 8,500 ft. alt. 3 sp.

June 13, " same canon. (D.C. Eaton.) 5,000 ft. alt. —

July 4, " Pack's canon, Uintah Mts. (D.C. Eaton.) 7,000 ft. —

R. rivalis, L. var. Eschscholtzii.

a.) Aug. 27, 1868. E. Humboldt Mts., Nev. Shore of lake. 9,000 ft. alt. 12 sp.

b.) Sept. 12, " Clover Mts., Nev. 10,000 ft. alt. 5 "

c.) Aug. 4, 1869. Uintah Mts., Utah. Head of Bear river canon 10,000 ft. alt. 8 "

d.) " " " Near same locality. Tall, Doubtful form. 1 "

e.) July 6, " Uintah Mts. ~~District~~ between Provo & Duchesne Rs. 10,000 ft. 6 "

22. R. ~~nivalis~~ glaberrimus, Hk. (Fl. Bor. Amer. I. 12, t. 5. a.) Subalpine & subalpine form.

Apr. 4, 1868. Washoe Mts., Nev. King's canon, near Carson city. 5,000 ft. 11 sp.

~~11 Specimens of R. Cymbalaria Hooker~~

29. R. digitatus, sp. HK, affinis R. nivalis [illegible]

June 25, 1869. Gold Run District, Nev. - Peak above Cumberland 9,000 ft. 5 sp.

" 16, 1869. Wahsatch Mts. Utah. Cottonwood Lake: (S.C. Eaton.) 9,000 ft. —

30 R. orthorhynchus, HK. [illegible]

July 15, 1869. Wahsatch Mts. Utah Divide above Cottonwood canon. Base of snow bank. 10,000 ft. alt. 14 sp.

[illegible]

2. R. Andrewsii, Gr. var.

June 18, 1869. Pilot Rock Point, Salt Lake, Utah. 5,000 ft. 3 sp.

Whole plant more delicate & slender; stems 1° high, with (in one specimen) a leaflet above the middle similar to the radical leaves; petals & achenia somewhat smaller, & the latter less numerous & crowded in the heads.

30. R. Andrewsii, Gr. (Proc. Am. Acad. Art. & Sci. VII. 327.) As this remarkable species was originally described from flowering specimens only, a fuller description is here given, founded upon a large number of matured plants.

Acaulis, glaber, radice fibrosa, foliis tripartitis, segmentis tripartitis, laciniatis, laciniis lanceolatis subacutis; scapis aphyllis unifloris; floribus pollicem diametro; sepalis latissimis glabris persistentibus; petalis "saturate roseis" e ungue brevi angusto in laminam suborbicularem basi fovea minima glandem dilatatis marcescenti-persistentibus; capitulis maturis praegrandibus sphaeroideis, carpellis pro genere maximis, inflatis, glaberrimis, subcompressis, obtusis, stylo minimo curvato apiculatis, semine elongato, leviter curvato, supra basin sulcum ventralis affixo, adcumbente.

Glaberrima throughout, with somewhat stout & fleshy habit, a span to

six inches high. Root coarsely fibrous, leaves all radical, 3-lobed, lateral lobes 2-3 cleft, terminal one 3-cleft or petioled — divisions incisely once or twice ultimate cleft, segments narrow. Scape longer than the leaves, naked, 1-flowered. Sepals somewhat petaloid, persistent, broad ovoid or orbicular, narrowed at base, ½" in diameter. Petals even larger, with a narrow claw (1" long) & shallow nectary. Carpels (large, 4" in Diam.) membranaceous, orbicular, cuneate below, ~~somewhat~~ ~~reticulate~~ inflated corn, vessel reticular, abruptly pointed with the persistent short recurved style, narrowly margined upon the ventral side, crowded in an large globular head. Seeds (¼-1½" long) attached to the ventral suture above the base.

a.) May 16, 1868. Trinity Mts., Nev. Foot hills. 5,000 ft. alt. 12 sp.
b.) June 8, 1868. W. Humboldt Mts., Nev. Unionville cañon 6,000 ft. alt. 2 "
c.) " 27, " Reyanis Valley, Nev. Foot hills 5,000 ft. 1 "
d.) July 27 " E. Humb.t Mts., Nev. Foot Ruby cañon 9,000 ft. 1 "
e.) June 13, 1869. Stansbury Island, Salt Lake. Near Peak 6,000 ft. 1 "

31.— Caltha leptosepala, DC. (Hook. Fl. Bor. Am. I. 22, t. 10. Trk. Fl. I. 27.)

a.) Aug. 29, 1868. E. Humboldt Mts., Nev. In flower 10,000 ft. 13 sp.
b.) Sept. 10, " Clover Mts., Nev. In fruit 10,000 ft. 10 "
c.) " 12, " " " In flower 10,000 ft. 4 "
d.) July 14, 1869. Wahsatch Mts. Cottonwood Lake. 9,000 ft. 4 "

32.— Trollius laxus, Salisb. (Torr. Fl. N.Y. I. t. 3. Gr. Gen. I. t. 11. Trk. Fl. I. 28. T. Americanus, Hook. Fl. Bor. Am. I. 23. T. laxus, var. albiflorus, Gr. Sill. Jour. XXXIII. 12.) Sepals dull greenish or yellowish white; in no other respects distinguishable from the eastern plant.

a.) July 6, 1869. Uintah Mts., Utah. Divide on Duchesne. 9,000 ft. 11 sp.
b.) Aug. 2, " " " Bear river cañon. Fruit. 9,000 ft. 10 "

33.— Aquilegia Canadensis, L., var. formosa, Torr. (A. formosa, Fisch., Trk. Fl. I. 30.) Not uncommon on stream banks in the mountain cañons of Nevada, but not seen in Utah.

a.) Aug. 16, 1867. Truckee Mts., Nev. 6,000 ft. alt. 15 sp.
b.) Sept. 3, " W. Humboldt Mts. Wright's cañon. (also W. W. Bailey.) 7,000 ft. 2 "
c.) June 9, 1868 " " Unionville cañon. 6,000 ft. 1 "
d.) June 27, " Gold Run District, Cumberland. 6,000 ft. 1 "
e.) July 6 or 7, " Toiyabe Mts., near Austin. 6,000 ft. 3 "
f.) " 11, " Ruby valley, 6,000 ft. 1 "
g.) Aug. 3 " " " " " 3 "

34.- Aquilegia Canadensis, L., var. formosa. A sub-alpine form; stem nearly simple, few flowered; uppermost leaflets entire, oblong or oval; sepals oval, equal to or longer than the spurs, widely spreading.

a.) July 24, 1869. E. Humboldt Mts., Nev. Canon near Ruby camp 8,000 ft. 1 sp.

b.) Aug. 6. " " " approaching common lower form. 9,000 ft. 2 "

c.) " 27 " " " Shore of mountain lake. 10,000 ft. 5 "

35.- A. coerulea, James. (Long's Exp. II. 345. Tor. Fl. 30. H. & a. Bot. Beech. I. 317, t. 72.) Flowers white, rarely with the sepals slightly tinged with blue. On shaded mountain slopes.

a.) June 28, 1869. Wahsatch Mts. Utah. Near Parley's Park. 8,000 ft. alt. 11 sp.

b.) July 14, " " " " Cottonwood Lake. 9,500 ft. alt. 1 "

c.) Aug. 2 " Uintah Mts. Bear river canon. With small leaves. 9,000 ft. alt. 2 "

35.- A. ~~barbatula, Hook. sp. var. flava~~.

a.) May 27, 1869. Wahsatch Mts. ~~Utah~~ near Salt Lake City. 5,000 ft. alt. 9 sp.

b.) July 7, " Uintah Mts. Banks of Provo river 7,000 ft. 3 "

35-a.- c.) " 13, " Wahsatch Mts. Cottonwood canon 7,000 ft. 6 "

37.- Delphinium elatum, L.? ~~wanting the hirsute peduncles~~ legs hirsute. Fruit ~~bony, glabrous & simple~~ in compact head of Rocky mountain specimens, so named; ~~stem subdivided simple~~, rarely ~~& corymbosely~~ branching, ~~rather bracted~~. On creek banks in high canons.

a.) July 24, 1869. E. Humb't Mts., Nev. 7,000 ft. alt. 1 sp.

b.) " 30, " " " " 8,000 ft. alt. 4 "

c.) Aug. 26, " " " 7,000 ft. alt. 5 "

d.) Sept. 8, " Clover Mts. Nev. 7,000 ft. alt. 4 "

e.) July 15, 1869. Wahsatch Mts. Utah. 8,000 ft. alt. 1 "

f.) " 17, " " " 7,000 ft. alt. 2 "

g.) " 20, " " " 8,000 ft. alt. 1 "

h.) " 24, " " " 8,000 ft. alt. 1 "

38.– D. delphinium Menziesii, DC. (Hook. Fl. Bor. Am. I. 25. Tor. Fl. I. 661.) Scarce variable. On low foothills, May or June. 1-2° high. 4-5,000 ft. alt.

a.) May 2, 1864. Near Carson City, Nev. 2 sp.

b.) " 14, " Truckee Valley, near the Big Bend. 2 "

c.) " 16, " Trinity Mts. Nev. 2 "

d.) " 20, " Humboldt Valley, near Coopers' Ferry. 1 "

e.) June 3, " W. Humboldt Mts., Nev., Indian cañon. 5 "

f.) " 8, " " " Unionville cañon. 2 "

g.) " 16, " " " Bloody cañon 2 "

h.) " 10, " " " Unionville foothills, 3 "

i.) July 20, " E. Humbt. Mts., Limestone cliff. 7,000 ft. alt. – A doubtful specimen.

39.– D. Menziesii, DC.? var. with pink flowers.

June 23, 1864. Dimples Range, Nev. Foothills. 5,000 ft. 1 sp.

40.– D. Menziesii, DC.? var. with double flowers.

June 18, 1864. Unionville Valley, Nev. 2 sp.

41.– D. decaperatum, Nutt. (T. & G. I. 33.), one of the variable but pretty well marked species; the alpine form very distinct. [illegible] in bloom, from fully grown specimens, [illegible]

a.) June 24, 1864. Regan's Valley, Nev. 5,000 ft. 3 sp.

b.) " 27, " Gold Run District, Nev., near Cumberland. 5,000 ft. 3 "

c.) Aug. 28, " E. Humbt. Mts., Nev., near Divd. 10,000 ft. 12 "

42.– D. Menziesii, DC. The Utah form, essentially the same as No. 24, but b. with the segments of the leaves more usually, sharply linear, and the upper petals delicately veined with blue. [illegible]

a.) May 17th 1869. Wahsatch Mts., Utah. Foothills near Salt Lake City. 2 sp.

b.) June 3, " Antelope Island, Salt Lake. 2 "

c.) " 24 " Wahsatch Mts. Parley's Park. 2 "

d.) July 14, " " " Head of Cottonwood cañon. 9,000 ft 6 "

43.– Aconitum nasutum, Fisch. (Hook. Fl. Bor. Am. I. 26. Trk. Fl. I.) Moist rocks in high mountain cañons. Blue and white.

a.)	Aug. 6, 1867.	E. Humbt. Mts., Nev.	8,000 ft. alt.	6 sp.
b.)	" 31, "	" "	7,000 ft. alt.	2 "
c.)	Sept. 8, "	Clover Mts., Nev.	" "	2 "
d.)	" 22, "	Humboldt Bars Mts., Nev.	" "	3 "
e.)	July 4, 1869.	Uintah Mts., Utah. Rock's cañon	" "	1 "
f.)	" 17, "	Wahsatch Mts., " Near Parley's Park.	" "	2 "
g.)	Aug. 8, "	Uintah Mts., Bear River cañon	7,500 ft. alt.	6 "

44.– Athrea spicata, L., var. arguta, Torr.– (A. arguta, Nutt.) Berries both red & white.

a.)	Aug. 19, 1867.	E. Humboldt Mts., Nev., near Fremonts Pass.	In fruit, red. 7,000 ft.	4 sp.
b.)	" 24, "	" " near same locality.	In fruit, red.	2 "
c.)	" 25, "	" " Government Ranch cañon,	7,000 ft. White	3 "

~~45.– A. spicata, L., var. rubra, Hook.~~

a.)	May 19, 1869.	Wahsatch Mts., Utah. Salt Lake City	In flo creek cañon. In flower. 6,000 ft.	4 sp.
b.)	June 25, "	" " Cañon near Parley's Park.	In flower. 7,000 ft.	2 "
c.)	Aug. 15, "	" " " "	" In fruit. " "	1 "

45.– Paronica Brownii, Dougl. (Hook. Fl. Bor. Am. I. 27. Trk. Fl. I. 41.)

a.)	Apr. 15, 1867.	Near Carson City, Nev.	4,500 ft. alt.	3 sp.
b.)	June 9, "	W. Humboldt Mts., Nev.– Unionville.	5,000 ft. alt.	4 "
c.)	Aug. 6, "	E. Humbt. Mts. Nev.– west cañon.	8,000 ft. alt.	1 "

Berberidaceae.

45. Berberis Aquifolium, Pk., var. repens. Ascending stems less than a foot in height, leaflets 3-7, teeth 5-15 on a side

a.) July 10, 1868. Diamond Mts., Nev. – Stage Pass. Sterile. 6,500 ft. alt. 4 sp.

b.) " 10, " E. Humboldt Mts., Nev. – Stage pass. Fruit. 6,500 ft. 6 "

c.) " 19, to 20 " " " " Camp Ruby cañon. In flower. 8,000 ft. 6 "

d.) " 24, " " " " " " Fruit. 6,000 ft. 1 "

e.) " " to 27 " " " Ft. Ruby Peaks In Flower. 10,000 ft. 3 "

f.) " 30, " " " " Savonitt cañon. Fruit 9,000 ft. 2 "

g.) May 17, 1869. Wahsatch Mts., Utah. near Salt Lake City. In flower. 4,500 ft. 4 "

Nymphaeaceae.

47. – Nuphar advena, Ait. Rare; high mountain lakes of the Uintah Mts. Utah.

Aug. 3, 1869. Uintah Mts.. Bear river cañon. 9,000 ft. alt. 2 sp.

(Pk. Fl. 369. Hook. Fl. Bor. Am. I. 33. Trk. Fl. I. 56.)

Papaveraceae.

48. – Argemone Mexicana, L., var hispida, Torr. (A. hispida, Gr., Pl. Fremd. 5, A. munita, Durand Hil. Pac. R.R. Rep. V. 5, p. 1.) Common; dry foot hills.

a.) June 12, 1868. – Dumpler Range, Nev. 5,000 ft. alt. 1 sp.

b.) July 6, " Toiyabeh Mts., Nev. near Austin 6,500 ft. alt. 1 "

c.) " 24, " Ruby Valley, Nev. 6,000 ft. alt. 2 "

d.) " 12, 1869. Utah Valley, near Provo City 4,500 ft. alt. 4 "

49. – Eschscholtzia Douglasii, Cham., var. hypecoides, Torr. (E. hypecoides, Benth. Chrysanis hypecoides, Lindl., Trk. Fl. I. 64.) Dry rocky foot hills, western Nevada.

a.) May 14, 1868. – Truckee Mt. Pass, near the Big Bend. 4,500 ft. alt. 15 sp.

b.) " 16, " Trinity Mts., near Brown's Station. " " 2 " "

c.) " 17, " " " " " " 4 " "

50 – Corydalis aurea, Willd., var. occidentalis, Eng. (Gr. Man. 5th ed. 62.) ~~Many branched from the root, spurs about ½ calling the corolla + pedicel, seeds smooth or minutely reticulated, margin thin;~~ seeds as in the eastern plant, pods erect or reflexed, straight or curved, stout or slender; bracts acute, ovate & conspicuous to linear & minute; 6-18' high. Pods smooth, or pubescent upon the sutures only.

a.) May 19, 1869. Wahsatch Mts. Utah. City creek cañon. 5,500 ft. 8 sp.

b.) June 11, " Black Rock Station, S. end of Salt Lake. 4,200 ft 2 "

c.) " 20, " Promontory Point, N. " " " " 1 "

d.) " 23, " Wahsatch Mts., Parley's Park. Creek bank. 6,000 ft. 1 "

e.) July 1, " " " " Silver creek cañon, rocks. " " 1 "

51. – Corydalis aurea, Willd., var. micrantha, Eng. (Gr. l.c.) Flowers small, nearly spurless, on short pedicels.

Aug. 12, 1869. – Uintah Mts., Utah. Bear River Cañon. 9,000 ft. 1 sp.

Cruciferæ.

52 – Parrya macrocarpa, R. Br., var. a. aspera, Hook. (Hook. Fl. Bor. Am. I. 47, t. 15. Eng. Fl. I. 88.) The exact counterpart of the plant of the Arctic & Northwest coast, hitherto its only known habitat. Near the summit of the highest peak of the Uintah Mts, at an altitude of 12,000 ft. In flower & fruit.

Aug. 3, 1869. Uintah Mts., Utah. Head of Bear river cañon 1 sp.

53 – Cheiranthus Menziesii, Benth. & Hook. Valves opening elastically, though Nuttall states the contrary.

a.) Apr. 23, 1864. Washoe Mts., Nev., near Mt. Davidson. In flower. 7,000 ft. 6 sp.

b.) May 29, " Trinity Mts., Nev. Summits west of Oreana. In flower. 6,000 ft. 1 "

c.) June 9, " W. Humboldt Mts., Nev. In flower & fruit 7,000 ft. 3 "

d.) " 25, " Gold Run District, Nev. Above Cumberland. In fruit. 7,000 ft. 5 "

58.– Nasturtium officinale, R.Br. (Hook. Fl. Bor. Am. I. 39. 7+G. Fl. I. 73.) In ditches and streams, near Salt Lake City. Probably introduced.

May 31, 1869. 6 sp.

58.– N. sinuatum, Nutt. (7+G. Fl. I. 73.)

a.) Sept. 20, 1867. W. Humboldt Mts., Nev. Star Canon. 5,000 ft. alt. 6 sp.

b.) " 24, 1867. Holmes' Creek Valley, Nev., near head. Creek bank. 6,000 ft. 1 "

59.– N. obtusum ~~Lyrata~~, Nutt. (7+G. Fl. I. 74.)

a.) July 16, 1867. Truckee Valley, Nev. River bank at Big Bend. (W.W. Bailey.) 3 sp.

b.) " 26, " " " " Same locality. 10 "

c.) Sept. 30, 1868. Goose Creek Valley, Utah. 3 "

59.– N. obtusum, Nutt. (7+G. Fl. I. 74.) Form.–

a.) July 7, 1868. Smoky Valley, Nev. Drymes at Cape Horn Station. 3 sp.

b.) Aug. 26, " E. Humboldt Mts., Nev. Canon above Overland Ranch. 7,000 ft. 3 "

c.) June 23, 1869. Parley's Park, Utah. Creek bank 6,000 ft. 3 "

59.– N. palustre, DC. (Hook. Fl. Bor. Am. I. 39. 7+G. Fl. I. 73.)

a.) July 26, 1867. Truckee Valley, Nev. River bank at Big Bend. 10 sp.

b.) " 28 " Same locality. (W.W. Bailey.) 3 "

61 c.) May 19, 1868. Humboldt Slough, Nev. Leaves more narrowly & acutely lobed. 2 "

60.– N. palustre, DC. var. hispidum, Gr. (N. hispidum, DC. 7+G. Fl. I. 74.)

a.) Sept. 30, 1868. Goose Creek Valley, Utah. Muddy slough bank. 1 sp.

b.) May 19, 1869. Wahsatch Mts., Utah. City Creek canon. 5000 ft. alt. 1 "

c) " 31, " Jordan Valley, near Salt Lake City. Water. 3 "

d.) June 23, " Parley's Park, Utah. Creek bank 6,000 ft. alt. 1 "

62.– N. ~~palustre~~ var. ? N. palustre (? Gray's Man.)

a.) June 23, 1869. Parley's Park, Utah. Stream bank. 6,000 ft. alt. 2 sp.

b.) Aug. 14, " Wahsatch Mts. Utah. Shore of mountain lake. 8,000 ft. 6 "

~~62.~~ 57 Nasturtium [illegible]

Aug. 4, 1869. Uintah Mts., Utah. Head of Bear river canon; wet lake shore. 10,000 ft. alt. 8 sp.

" 9, " Near same locality, over divide, 10,500 ft. 5 "

63.- Barbarea vulgaris, R. Br.- (Hook. Fl. Bor. Am. I. 39. Torr. Fl. I. 75.)

a.) June 8, 1868. E. Humboldt Mts., Nev. Unionville canon..... 6,000 ft. alt. 5 sp.

b.) July 6, " Toiyabeh Mts., Nev.- Divide above Austin. 6,000 ft. alt. 4 "

c.) Aug. 26, " W. Humboldt Mts., Nev. Canon above Overland Ranch. 7,000 ft. alt. 3 "

d.) Aug. 19, 1869. Wahsatch Mts., Utah. Cottonwood canon. In fruit. 6,000 ft. 1 "

64.- B. vulgaris, R. Br., var. B. gracilis, &c. Merely a reduced subalpine form.

a.) Aug. 31, 1868. E. Humboldt Mts., Nev. Head of canon above Overland Ranch. 9,000 ft. 3 sp.

b.) Sept. 12, " Clover Mts., Nev. Head of Dearing's canon. 9,000 ft. 3 "

c.) June 24, 1869. Wahsatch Mts., Utah. Canon above Parley's Park. 7,000 ft. 1 "

~~66.~~ 67 Arabis platysperma, Gr. (Proc. Am. Acad. Art. & Sci. VI. 519.)

"Humilis e basi suffruticescente; foliis cum caule jube stellata canescentibus spathulatis integerrimis, summis oblongis arcte sessilibus obtusis; racemo pauciflore; (petalis roseis;) siliquis arrectis rectisque lato-linearibus (1½-2½ poll. longis, lin. 2½ latis) acuminatis planis, valvis laxe reticulatis; stigmate sessili; seminibus amplissime alatis."

Sept. 2, 1868. E. Humboldt Mts., Nev. Canon above overland Ranch. Stream bank. 7,500 ft. alt. 6 sp.

~~68.~~ 69 Arabis canescens, Nutt. — var. cuneifolia.

a.) Sept. 10, 1868. Clover Mts., Nev. Highest Peak 12,000 ft. 1 sp.

b.) Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear River Canon. 12,000 ft. 1 "

I)

6v

~~bf.~~ Arabis [illegible]

a.) July 20, 1866. E. Humbt Mts. Nev. Canon above Camp Ruby. 9,000 ft. 1 sp.
b.) " 27, " " " Peak above Ft. Ruby. 10,000 ft. 1 "
c.) Aug. 4 " " " Peak south of Stage Pass. 8,000 ft. 10 "

70
~~bf.~~ Arabis [illegible]

a.) May 9, 1866. Steamboat Springs, near Washoe City, Nev. 4,500 ft. 4 sp.
b.) " 16, " Trinity Mts. - Foothills near Humboldt Lake, 5000 ft. 1 "
c.) " 20, " Humboldt Valley; sandy bank, above Lake 4,500 ft. 1 "
d.) June 15, 1869. Stansbury Island, Salt Lake. Sandy shore 10 "

75
~~bf.~~ A. arenata, Gr. (Streptanthus arenatus, Watt. Trk. Fl. I. 77.)

a.) Apr. 23+29, 1866. Foothills near Carson City, Nev. In flower. 4,500 ft. 10 sp.
b.) May 16, " Trinity Mts, Nev. Foothills near Humboldt Lake 4,500 ft. 2 "
c.) " 27, " " Canon west of Oreana 4,500 ft. 4 "
d.) July ? " Toiyabe Mts., Nev. Foothills East of Austin. Fruit. 6,000 ft. 1 "
e.) June 13, 1869. Stansbury Island, Salt Lake. Near Peak. Fruit. To the summit. 6,000 ft. 4 "

74
~~bf.~~ A. retrofracta, Grah. (Turritis retrofracta, Hook. Hook. Fl. Bor. Am. I. 41, Trk. Fl. I. 79.) Leaves varying from all entire, to all coarsely dentate; sagittate amplexicaul or simply clasping; broad lanceolate or almost linear. Stem single or several, simple or branched.

a.) Apr. 23-29, 1866. - Foothills near Carson City, Nev. In flower. 7 sp.
b.) May 15, " Mountain summit E. of Humboldt Lake 6,000 ft. 2 "
c.) June 8, " W. Humbt Mts. - Unionville canon, 6,000 ft. 2 "
d.) " 25, " Cumberland Mts., Nev. 6,000 ft. 1 "
e.) July 20, 24 " E. Humbt Mts. - canons above Camp Ruby. 7,500 ft. 2 "
f.) Aug. 4, " " " Peak south of Stage Pass 8,000 ft. 1 "

71.– Arabis retrofracta, Grah.– var. Siliquem a half- broader than usual and, with the rest of the plant, densely stellate- pubescent.

May 30, 1864. Foothills of Trinity Mts., Nev., near Oreana. 4,500 ft. 1 sp.

72.– A. patula, Torr. (Turritis patula, Grah. Trk. Fl. I. 79.) Approaching nearly some forms of A. retrofracta. Flowers cream.

a.) May 19, 1869. Wahsatch Mts., Utah. City creek cañon. 5,000 ft. 4 sp.

b.) June 3, " Antelope Island, Salt Lake. 4,500 ft. 1 "

66
73.– A. hirsuta, Scop. (Hook. Fl. Bor. Am. I. 42. Trk. Fl. I. 80.) Varying much in habit & [illegible]

a.) June 26, 1864. Cumberland, E. of Ruby District, Nev. Streambank. 5,000 ft. 2 sp.

b.) July 7, " Toiyabe Mts.– East of Austin, Nev. streambank. 6,000 ft. 3 "

c.) Oct. 3, " North base of Raft River Mts, Utah. Clear creek 5,000 ft. 3 "

d.) June 23, 1869. Wahsatch Mts. Utah. Parley's Park. streambank. 6,000 ft. 5 "

e.) " 24, " " " Cañon above Parley's Park. 6,500 ft. 2 "

65
74.– A. hirsuta, Scop.– ~~Nev.~~ Basal leaves rosulate (as in some of the above specimens;) stems low (1°) slender, with a few distant oblong or ovate leaves, few to many flowered, pedicels more or less divergent.

a.) June 23, 1869. Parley's Park, Utah. Streambank. 6,000 ft. 4 sp.

b.) July 4, " Uintah Mts., Utah. Packs cañon. Rocks. 7,000 ft. 4 "

c.) Aug. 24, " " American Fork cañon. 6,000 ft. 6 "

71
~~75~~.– A. perfoliata, Lam. (Turritis glabra, L. Hook. Fl. Bor. Am. I 40 Trk. Fl. I 78.)

a.) June 8, 1864. W. Humboldt Mts., Nev. Unionville cañon. 5,500 ft. 1 sp.

b.) May 27, 1869. Wahsatch Mts., Utah. City creek cañon 5,000 ft. 2 "

c.) June 29, " " " Cañon above Parley's Park 6,000 ft. 1 "

72
~~76~~.– A. Drummondii, Gr. Gr. Man. 69 (Turritis stricta, Grah. Hook. Fl. Bor. Am. I. 40. Trk. Fl. I. 79.)

June 8, 1864. W. Humbt Mts. Nev.– Unionville cañon. A slender flexuous form, similar to one of the next 6,000 ft. 5 sp.

June 24, 1869. Wahsatch Mts., Utah. Cañon above Parley's Park, 6,500 ft 5 "

found by Penny in Meister Park, 1936, – Hermann (1881 ?) at Command Pond, – & by Newberry in Cleveland's [illegible] marked 3 centimeters, near Mound Springs in Herb. Gray – Cuscuta Gronovii plants, Europe in Connecticut the petals in Diplacus

II.)

73
77 – A. Drummondii, Gr. var. A reduced alpine form. Flowers few, purple or white. Somewhat pubescent; hairs attached by the middle, or stellate. 2'–1° high.

a.) July 20, 1868. E. Humbt Mts. Nev. Cañon above Camp Ruby 8,000 ft. 3 sp.
b.) Aug. 27, " " " Lake above Overland Ranch. 9,000 ft. 2 "
c.) Sept. 7 " Clover Mts., Nev. South Peak 10,000 ft. 3 "
d.) Aug. 4, 1869. Uintah Mts., Utah. Divide at head of Bear River. 10,000 ft. 9 "
e.) " 12, " " " Ridge in Bear River cañon 8,500 ft. 2 "

76.
78 – Streptanthus cordatus, Nutt. (Torr. Fl. I.)).

a.) July 24, 1868. E. Humboldt Mts., Nev. Divide above Camp Ruby. 9,000 ft. 7 sp.
b.) " 27, " " " Ridge above Ft. Ruby 9,000 ft. 1 "
c.) Aug. 4, " " " Peak south of Stage Pass. 9,000 ft. 2 "
d.) July 4, 1869. Uintah Mts, Utah. Ridge above Packs cañon 8,000 ft. 8 "
e.) " 9, " " " Ridge near Kamas Prairie, 7,000 ft. 3 "

79 – S. pinnatifidus " " " "

a.) May 13, 1868. Truckee Valley, Nev. Foot-hills near the Big Bend. 3 sp.
b.) " 18, " Humboldt Valley, Nev. " near Humbt Lake, 5 "

765
Lodanthus Kingii
80 – S. bracteatus, Gr. var. Lower leaves deeply [illegible] entire, cauline ones lanceolate, [illegible] upon a naked petiole, 2–3 in. high or more,

June 29, 1868. Summit Springs, E. of Pegans Valley, Nev. 5,000 ft. 2 sp.

81. – S. ——— Same as the last

a.) July 6, 1868. Monitor Valley, Nev., at Grubbs Wells. Alkali meadow. 1 sp.
b.) June 3, 1869. Salt Lake Valley, Utah. Meadow at mouth of Jordan 3 "
c.) " 11, " Rabbit Island, Salt Lake. Alkali mud bank. 8 "
d.) " 23, " Parley's Park, Utah. Stream bank 1 "

82 – Streptanthus ~~pedicellatus~~ heterophyllus

a.) June 24, 1869. Wahsatch Mts, Utah. Cañon above Parley's Park. 6,000 ft. 2 sp.
b.) July 9, " Uintah Mts, " Packs Cañon 7,000 ft. 1 "
c.) Aug. 10, " Wahsatch Mts. Cañon below Parley's Park. 6,000 ft. 6 "

~~82~~ 79
~~83~~ – S. crassicaulis, Torr. (Stans. Rep. 303. t. 1.) "Glaucus; caule glabro inflato fistuloso; foliis oblongis runcinato-pinnatifidis vel runcinatis longe petiolatis; floribus erecto-patulis; petalis (purpureis) linearibus obtusiusculis calyce villoso-lanato duplo longioribus." Siliqua elongata teres enervis stigmatis globis erectis capitata. Semina compressa oblonga subangulata angustè marginata cotyledonibus subobliquè accumbentibus.

a.) May 23, 1868. Humboldt Valley, Nev. Foothills E. of Oreana. 4,500 ft. 1 sp.
b.) June 24, " Cumberland Mts, Nev. Bardwan's Pass 5,000 ft. 1 "
c.) July 20, " E. Humboldt Mts. Ridge above Camp Ruby 6,500 ft. in fruit. 1 "
d.) " 29, 1869. Bear River Valley. Foothills near Evanston. 6,000 ft. 4 "

~~84~~ 80
~~84~~ – Cardamine cordifolia, Gr. (Pl. Fremd. 8.) Stems sometimes all reniform, 2-4' in breadth – upper ones often more or less acuminate – scarcely ciliate – principal nerves projecting slightly beyond the margin.

a.) Sept. 16, 1868. Clover Mts., Nev. Stream bank 6,500 ft. 5 sp.
b.) June 25, 1869. Wahsatch Mts., Utah. Cañon above Parley's Park. 7,000 ft. 4 "
c.) July 4, " Uintah Mts., Utah. Pack's cañon 7,000 ft. 4 "

~~85~~ 81
~~85~~ – C. hirsuta, L. (Hook. Fl. Bor. Am. I. 45. Torr. Fl. I. 85.)

a.) Sept. 30, 1868. Goose Creek Valley, Utah. Stream bank. 1 sp.
b.) June 23, 1869. Parley's Park, Utah. " " 6,000 ft. 4 "
c.) July 7, " Uintah Mts., Utah. Provo river bottom. 7,000 ft. 2 "

~~86~~ 82.
~~86~~ – Platysperma scapigerum, Hook. (Hook. Fl. Bor. Am. I. 64. t. 16. Torr. Fl. I. 112.)

May 9, 1868. Steamboat springs, near Washoe City, Nev. In fruit. 7 sp.
collected only in Oregon by Douglas.

88.- Vesicaria montanica, Gr. (Proc. Acad. nat. Sci. Phil. Mar. 1863. p. 58.) "Argenteo-incana; caulibus e radice perenni diffusis foliosis; foliis spathulatis, radicalibus subrosatis petiolatis nunc 1-2dentatis; racemo fructifero elongato; siliculis ovali seu ellipsoidea cano-pubescente stylo gracili longiore pedicello patente sursum curvato paullo breviore". Dry mountain slopes.

a.) June 8, 1868. W. Humboldt Mts., Nev. Unionville cañon. 9,000 ft. 7 sp.

b.) July 27, " E. Humbt. Mts., Nev. Peak South of Camp Ruby 10,000 ft. 8 "

c.) Aug. 17, " " " Peak above Sawmill. Fruit. 10,000 ft. 1 "

d.) July 14, 1869. Wahsatch Mts., Utah. Above Cottonwood Lake. 9,500 ft. 2 "

89.- Physaaria didymocarpa, Gr. (Vesicaria, Hook. Fl. Bor. Am. I. 49, t. 16. Torr. Fl. I. 102.)

In specimens (c.) radical leaves subhyssate.

a.) June 8, 1868. W. Humbt. Mts., Nev. cañon above Unionville. In flower 9,000 ft. 5 sp.

b.) July 20, " E. Humbt. Mts. Ridge above Camp Ruby. In fruit. 6,500 ft. to 9,000 ft. 9 "

c.) " 1, 1869, Parley's Park, Utah. Foot-hills on Silver Creek. 6,000 ft. 7 "

d.) " 4, " Uintah Mts., Utah. Pack's cañon. 7,000 ft. 1 "

90.- Draba alpina, L. (Hook. Fl. Bor. Am. I. 50. Torr. Fl. I. 103.) Flowers & fruit in a loose raceme; leaves (Spathulate, or obovate, nearly entire) stellately pubescent; scapes nearly glabrous; siliques glabrous or pubescent.

a.) July 20, 1868. E. Humbt. Mts., Nev. Cañon above Camp Ruby 8,000 ft. 15 sp.

b.) " 24, " " " " Peaks above Camp Ruby 9,000 ft. 2 "

c.) " 25 " " " Peak South of Camp Ruby 9,000 ft. 1 "

91 90.- D. alpina, var. glareosa, Wats. (Hook. Fl. Bor. Am. I. 51. Torr. Fl. I. 105.) ~~Carried by Dr. Hooker to D. alpina~~, ~~L. Resembling the last, but readily distinguished by the much narrower, more or less~~ ~~laxly ciliate leaves. The siliculæ pubescence is sometimes~~ ~~Scapes 2-4' high.~~

a.) July 20, 1868. E. Humbt. Mts., Nev. - with 89, a. 8,000 ft. 1 sp.

b.) " 24, " " " " with 89, b. 9,000 ft. 1 "

c.) Aug. 4, " " " Peak south of Stage Pass. 9,000 ft. 2 "

d.) " 27, " " " Peak above Overland Ranch. 10,000 ft. 2 "

92

91.– Draba glacialis, Adams. A dwarf alpine form; scapes 1' high, leaves densely crowded upon their matted bases. Exactly "D. alpina" of Hooker & Thomson from Thibet, in Herb. Eaton. Leaves more rigid & strongly ciliate

a.) Sept. 10, 1869. Clover Mts., Nev. Highest peak. 11,000 ft. 15 sp.

b.) Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear River Canon. 11,000 ft. 10 "

c.) " 9, " " " " Divide at head " " 10,000 ft 6 "

d.) " 10, " " " " Peak west " " 11,000 ft. 1 "

92.– D. glacialis, Adams. var. γ. Hook. (Fl. Bor. Am. I. 51.) Scapes, pedicels, & siliculæ strongly hirsute-hubescent. Uintah Mts. – similar to Nevada 2 & 16.

Aug. 28, 1868. E. Humb.t Mts., Nev. Peak above Overland Ranch. 10,000 ft. 3 sp.

94.– D. alpina (= D. algida, Adams) scapes (+ - 3 flowered) + siliquose glabrous, leaves ovate, glabrous, ciliate, scarcely serrate. Very dwarf & matted.

Resembling plants of Europe and from Altai. & N. & W. Thibet in Herb. Eaton.

a.) Aug. 29, 1868. E. Humb.t Mts., Nevada. Peaks above Lake. 10,000 ft. 2 sp.

b.) " 3, 1869. Uintah Mts., Utah. – Peak above Bear River canon. 11,000 ft. 3 "

c.) " 10, " " " " Crest N. D. 11,000 ft. 1 "

~~95~~ 94.– D. stellata, Jacq. – var. β. hebecarpa. (Hook. Fl. Bor. Am. I. 53. 709. Fl. I. 105.)

July 19, 1868. E. Humb.t Mts., Nev. Canon above Camp Ruby. 8,000 ft. 5 sp.

Aug. 3, 1869 – Uintah Mts. – with var. β. Lapland 11,000 ft. 5 "

95.– D. nivalis, Lilj. – Uintah Mts. with glabrous D. nivalis, Lilj. from Dovrefjeld in Herb. Torrey. Pods glabrous, linear-oblong (or oblong-) acuminate, with or without a prominent style. Near No. 5 of Hooker.

a.) Sept. 3, 1868. E. Humb.t Mts., Nev. Peak above Hunneman's 10,000 ft. 1 sp.

b.) Aug. 3, 1869. Uintah Mts. – Utah. Peak above Bear River Canon. 11,000 ft. 8 sp.

~~96.– D.~~

~~Aug. 3, 1869. Uintah Mts. with 95. b. 11,000 ft. 5 sp.~~

~~97.– D.~~

~~Aug. 3, 1869. Uintah Mts. with 95. b. 11,000 ft. 1 sp.~~

98.- Draba Douglasii, Gr. (Proc. Am. Acad. Art. + Sci. VII. 324.)

Apr. 29, 1868. South side of Mt. Davidson, near Virginia City, Nev. 6,500 ft. 18 sp.

98.- D. aurea, Vahl. (Hook. Fl. Bor. Am. I. 55. 7 Sep. 71. I. 10.) Flowers yellow or white.

a.) Aug. 2, 1869. Wintah Mts., Utah. Above Bear River Canon 9,000 ft. 2 sp.

b.) " 3 " " " Peak above " (white.) " 9-11,000 ft. 45 sp.

c.) " 11, " " " Bear River canon, Stream bank. 8,000 ft. 4 "

99.- D. nemorosa, L. (D. nemoralis, Ehr.) Siliques equalling the pedicels.

a.) May 17, 1869. Foothills near Salt Lake City. 2 sp.

b.) " 19, " City creek canon, Utah. 4,500 ft. 4 "

c.) " 31, " Jordan valley, near Salt Lake City - under sagebrush. 5 "

d.) June 25, " Parley's Park, Utah. Creek banks. 6,000 ft. 6 "

e.) July 14, " Wahsatch Mts., Utah. Cottonwood canon. 5,500 ft. 1 "

100.- D. nemorosa, L. var. lutea. (D. lutea, Gilib.) Often with the scape nearly or quite leafless. Hall + Harbour's No. 41 seems to be the same thing, (marked D. crassifolia, Grah.) The flowers from the first specimen are pinkish white.

a.) Aug. 29, 1868. E. Humboldt Mts. Peak above Overland Ranch. 10,000 ft. 15 sp.

b.) July 6, 1869. Uintah Mts., Utah. Duchesne River Divide. 10,000 ft. 2 "

c.) " 14, " Wahsatch Mts., " Cottonwood canon. 9,000 ft 7 "

d.) Aug. 4, " Uintah Mts., " Bear River canon, lake shore. 9,000 ft. 4 "

e.) " 12, " " " Ridge above canon 10,000 ft. 2 "

101

102.- D. Carolinianna, Walt., var. micrantha. Gr. (D. micrantha, Sm. H.)

a.) May 17, 29, 1869. Foothills near Salt Lake City. 5 sp.

b.) " 31, " Jordan valley, " " 2 "

c.) June 7, " Antelope Island, Salt Lake 1 "

103.- Sisymbrium juncceum, Bieb. (Hook. Fl. Bor. Am. I. 61. 7 Sep. 71. I. 91.)

Aug. 4, 1868. E. Humboldt Mts., Nev. South of Stage Pass, head of canon. 9,000 ft. 25 sp

105. S. californicum

105.– Sisymbrium canescens, Nutt. (Tid. 92.) Very abundant. Varying much in the division of the leaves & degree of pubescence – the latter always branched. Seeds gathered by the Indians for food. = Ah-tsáh. "Heap cat'em."

a.) July 26, 1867. Truckee Valley, at the Big Bend, Nev. (W. W. Bailey.) 4,500 ft. 2 sp.

b.) Sept. 2), " Unionville Valley, Nev. Meadows " 2 "

c.) Apr. 12-May 4, 1868. Near Carson City, Nev. Early forms. " 12 "

d.) May 14, +20, " Humboldt Valley, Nev. Near Humb.t Lake " 6 "

e.) June 19, " E. Humboldt Mts., Nev. Unionville 4,500 ft. 1 "

f.) " 27, " Cumberland Mts., Nev. 5,000 ft. 1 "

g.) July 6, " Toiyabe Mts., Nev. Near Austin 6,000 ft. 1 "

h.) " 20, " E. Humboldt Mts., Nev. Ridge above Camp Ruby. 7,000 ft. 5 "

i.) Aug. 4, " " " Below Stage pass. 8,000 ft. 1 "

j.) " 18, " " " Peak above Sawmill. 10,000 ft. 1 "

k.) June 30, 1869. Wahsatch Mts. Utah. Parley's ~~Camp~~ Park. 6,000 ft. 4 "

106.– S. canescens, Nutt., var. with oblong or nearly orbicular siliques. Much less fragment.

May 16 +20, 1868. Humboldt Valley, Nev. Near Humb.t Lake 12 sp.

106.– Sanctowskia calycina, Meyer. (Hutchinsia, Desv. Hook. Fl. Bor. Am. I. 54, t. 17). Tid. Fl. I. 114.)

a.) Aug. 27, 1868. E. Humb.t Mts. Peaks above Overland Ranch. 10,000 ft. 10 sp.

b.) Sept. 3, " " " Peak above Hummann's 10,000 ft. 6 "

c.) Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear River cañon. 11,000 ft. 8 "

d.) " 10, " " " Peak west of do. 16,000 ft. 3 "

107.– Erysimum cheiranthoides, L. (Hook. Fl. Bor. Am. I. 64, Tid. Fl. I. 94.)

a.) July 2, 1868. Reese Valley, Nev. E. foothills near mouth. Creek bank. 5,000 ft 1 sp.

b.) June 23, 1869. Parley's Park, Utah. Creek bank. 6,000 ft. 2 "

c.) July 3, " Kamas prairie, Utah. Creek bank. 6,500 ft. 3 "

d.) " 9, " Wahsatch Mts., Utah. Provo cañon, river bank, 6,000 ft. 4 "

108.– Erysimum asperum, DC. (Hook. Fl. Bor. Am. I. 64, t. 22. Tor. Fl. I. 95.)

a.) July 10, 1868. Diamond Mts., Nev. Summit of Stage Pass. 7,000 ft. 7 sp.

b.) " 20, " E. Humb.t Mts., Nev. Canon above Camp Ruby 7,500 ft. 3 "

c.) " 24, " " " Divide above Camp Ruby 8,000 ft. 1 "

d.) " 27, " " " Peak above Ft. Ruby 9,0000 ft 1 "

e.) Aug. 4 " " " Peak south of Stage Pass. 8,000 ft. 1 "

f.) May 17, 1869. Foot-hills near Salt Lake City, Utah. 4,500 ft. 2 "

g.) " 21, " City Creek canon, Wahsatch Mts. " " 2 "

h.) June 3, " Antelope Islands, Salt Lake " " 1 "

i.) July 4, " Uinkaret Mts, Utah. Packs canon 8,000 ft. 1 "

j.) Aug. 3, " " " Peak above Bear river canon 11,000 ft. 1 "

k.) " 12, " " " Ridge " " Peak 9,000 ft. 2 "

109.– E. asperum, DC. var., with small flowers, [illegible]

July 9, 1868. Diamond Valley, Nev.– western foothills. 6,000 ft. 4 sp.

110.– E. pumilum, Nutt. (Tor. Fl. I. 95.)

a.) May 2, 1868. Washoe Mts. Nev. Clear Creek canon below Carson. 5,000 ft. 7 sp.

b.) " 9, " Steamboat Springs, Nev. near Washoe City. 4,500 ft. 5 "

111.– Stanleya pinnatifida, Nutt. (Tor. Fl. I. 97.) The upper leaves are often entire and by the decay of the lower ones we have the S. integrifolia of Jamesa. It does not merit the rank of a variety. the woody base is found 1" in diameter, showing 10-12 annual rings.

a.) July 26, 1869. Truckee Valley, Nev. Border of Desert (W. W. Bailey.) 8 sp.

c.) " 8, 1868. Monitor Valley, Nev. Foot-hills. 3 "

b.) June 11, " Unionville Valley, Nev. " 2 "

d.) July 11, 1869. Wahsatch Mts., Utah. Provo canon, near mouth. 6 "

112.– S. viridiflora, Nutt. (Tor. Fl. I. 97.) This seems to be Nuttall's plant, which otherwise has not probably been found, but the radical leaves (often 1° long) rarely show even a tendency to division, the cauline ones are sagittate clasping, the stipes ½' long, the siliques narrowly linear, 2-3' long.

a.) Aug. 4, 1868. Reese's valley, Nev. 2 sp.

b.) July 29, 1869. Bear River Valley, Utah. Near Evanston. 8 "

79
113.– Thelypodium integrifolium, Endl. (Pachypodium, Nutt. Tog. 71. 9b.)

a. July 26, 1867. Truckee meadows, Nev., at the Big Bend. (W.W. Bailey.) 6 sp.
" " " Same locality. 10 "

b.) " 7, 1868. Monitor Valley, Nev. Foothills. 1 "

c.) Sept. 2, " City of Rocks canon, S.E. Idaho. 1 "

d.) July 22, 1869. Wahsatch Mts. Utah. Silver Creek canon. 6000 ft. 3 "

114.– T. brachycarpum, Torr. (S. Pac. Ex. Exp. Bot. W. Amer. t. 1. Proc. Am. Acad. Arts + Sci. VI. 520.)

a.) July 24, 1867. Truckee meadows, Nev. at the Big Bend. (W.W. Bailey.) 6 sp.

b.) Aug. 20, " Same locality. 2 "

81
115.– T. laciniatum, Endl. (Pachypodium, Nutt.– Tog. 71. I. 9b.)

June 25, 1868. Cumberland Mts., Nev. Rocky ridge above Pegan's Valley. 6,000 ft. 6 sp.

116.– T.

June 24, 1868. Pegan's Valley, Nev. 5,000 ft. alt. 3 sp.

77
117.– T. sagittatum, Gr. (Pachypodium, Nutt. Tog. 71. I. 9.) Growing in alkaline soils. Stem weak, subdecumbent. Radical leaves lanceolate, tapering to a long slender petiole.

a.) May 9, 1868. Truckee meadows, near Glendale, Nev. 5 sp.

b.) June 11, 5th " Unionville valley, Nev. 5 "

c.) July 28, " Ruby Valley, Nev. 1 "

d.) June 11, 1869. Trilla meadow, south shore of Salt Lake 1 "

e.) " " " Rabbit Island, Salt Lake. 9 "

113
118.– Brassica nigra, Koch. (Sinapis nigra, L.) Introduced. Near old settlement.

Sept. 19, 1867. W. Humboldt Mts. Storm canon 3 sp.

114
119.– B. campestris, L. Introduced.

Oct. 11, 1867. Unionville Valley, Nev. 2 sp.

July 10, 1868. Gibson's Valley, Nev. Near Stage road 5 "

May 15, 1868. Trinity Mts, near stage road. Doubtful forms. 1 "

115
~~120~~. – Capsella Bursa-pastoris, Moench. Introduced.

May 17, 1869. Wahsatch Mts., Utah. Foot-hills near Ft. Douglas. 3 sp.

116
~~121~~. – C. divaricatus, Both. (Hymenolobus, Nutt. T.& G. 71. I. 117.) ~~Collected previously~~ ~~only by Nuttall in Oregon~~ Leaves oblong-spatulate, radical ones ovate, on petioles ~~equalling~~ ~~exceeding~~ the blade – entire, or rarely sinuate-dentate or pinnatifid. Growing in damp ~~and~~ alkaline soil, usually under sage brush.

a.) Apr. 23, 1868. Sage brush plains, near Carson City, Nev. 10 sp.

b.) July 1, " Humboldt Valley, Nev., mouth of Reese river 7 "

c.) May 31, 1869. Jordan Valley, near Salt Lake City 5 "

d.) June 3, " Salt Lake Valley – mouth of Jordan. 6 "

e.) " " " Antelope Id Lake, Salt Lake 6 "

f.) " 15 " Stansburys Island, " " 5 "

117
~~122~~. – Lepidium intermedium, Gr. ~~var. subvirale, Gr.~~ (L. subvirale, Auct. non. L.)
" " var. lonicerifolium, Engelm

a.) July 26, 1867. Truckee Valley, at Big Bend. 4 sp.

b.) May 20, 1868. Humboldt Valley, near Humboldt Lake 4 "

c.) July 6, " Toiyabeh Mts., Nev. Summit above Austin. 6,500 ft. 2 "

d.) May 17, 1869. Foothills near Salt Lake City 1 "

e.) June 3, " Salt Lake Valley – Meadow at mouth of Jordan 5 "

118
~~123~~. – L. alyssoides, Gr. (Pl. Fend. 10.) Perennial, with a woody base.

a.) May 14-17, 1868. Foothills of Trinity Mts., near Humboldt Sink 6 sp.

b.) June 9, " W. Humbt Mts. Nev. Univeridle Canon. 1 "

119
~~124~~. – L. montanum, Nutt. (T.& G. 71. I. 116.) Very variable in pubescence, division of leaves, & habit of growth. Partial to saline soils.

May 9, 1868. Steamboat Springs, Nev., near Washoe City. 5 sp.

June 12, " Pleasant Valley, east of Sierra Range, Nev. 3 "

" 23, " Hot Springs, in Grass Valley, east of Sierra Range, Nev. 1 "

July 4, " Monitor Valley, Nev. near Grubbs Wells. 5 "

Sept. 7, " Salt Lake Valley – above Bear River. 1 "

June 11, 1869. Trilla Meadow – South end of Salt Lake 1 "

July 27, " Weber Valley, Utah – above Coalville 4 "

V.)

Indéterminable – probably a monstrosum with ammatum prod.– within the meantime.–

VI.) Gathered in fr[illegible] 2e Syl[illegible] on Mohave River, Ariz. 25.27.44. Compound – fine flower about with a fine print & vestigial leaves. Calyx-lobes incumbent.

[illegible] – seems to be doubtful intergrade between the probably [illegible] description from single fresh specimen. The leaves upon the branches with [illegible] the division of the calyx-lobes. Intergrade between the two, with both lobes of calyx fully divided & all acuminate

VII.) Growing in the lower valley on the Hero[illegible] at Low.

120

125.– Lepidium montanum, Nutt. var. alpinum. Remarkable for the locality in which it was found, but peculiar only in its slender growth & in the broader outline of the lobes of its leaves. – Perennial.

July 13 & Aug. 19, 1869. Wahsatch Mts. Utah. Rocky gulch of Cottonwood cañon. 9,000 ft. alt. 15 sp.

121.

126.– L. –

Oct. 1, 1867. – Dunglen Range, Nev. Granite Peak cañon 5,000 ft. 1 sp.

122

127.– L. spatulatum, Torrey? nov. 2 sp.

Nov. 16, 1867. – Rocky foothills, below Humboldt Lake, Nev. 2 sp.

123

128.– L. dichotomum, Gr. (Proc. Am. Acad. A. & S. VII. 329.) Differs from the description in its leaves which are pinnate with a few linear lobes. The flowers are also petalous.

April 4 & 23, 1868. Under sage brush, near Carson City, Nev. 20 sp.

124

129.– L. flavum, & Torr. (Bot. of Whipple's Expd., Pac. R.R. Rep. IV. 67.) Dr. Torrey's description, though drawn from very scanty early specimens, needs little alteration. The prostrate branches of the advanced plant are 6' or more in length, with short densely fruiting branchlets. The radical leaves are simple, ovate-spatulate, with a few teeth towards the apex. Abundant about Humboldt Lake, Nev.

a.) Nov. 16, 1867. – Foothills east of Humboldt slough. 1 sp.

b.) May 16 & 20, 1868. – Foothills west & north of Humboldt Lake. 12 "

125

130.– L. nanum. nov. sp. Perennium nanum caespitosum; foliis congestis obcuneatis apice trilobatis, petiolis marginatis ciliatis; floribus ignotis; scapis vix foliatis erectis 1-3-floris; siliculis ovatis apice acuminato exalato emarginatis stylo persistente 3-longioribus; cotyledonibus accumbentibus. Whole plants scarcely an inch high, in dense mats.

Sept. 24, 1868. Dry gravelly foothill, head of Holmes' Creek Valley, Utah. 6,000 ft. 12 sp.

126
130.– *Thlaspi cochleariforme*, DC. (Hook. Fl. Bor. Am. I. 66. Fl. I. 113.)

a.) Aug. 2), 1868. E. Humb[t]. Mts, Nev. Lake shore above Overland Ranch. 9,000 ft. 10 s.

b.) Sept. 3, " " " Peaks above Hummanas. 10,000 ft. 2 "

c.) " 13, " Clover Mts., Nev. Highest Peak 11,000 ft. 1 "

d.) July 4, 1869. Wintah Mts., Utah. Ridge above Packi cañon 7,000 ft. 10 "

e.) " 5, " " " Peak above Provo cañon 9,000 ft. 10 "

f.) " 14 " Wahsatch Mts., " Cottonwood cañon, 8,500 ft. 3 "

g.) " 15, " " " Kimball's Mine cañon 9,000 ft. 2 "

h.) Aug. 4, " Wintah Mts., " Lakes at head of Bear River Cañon 10,000 ft. 1 "

131.– *Thysanocarpus* ~~curvipes, Hook.~~ (Hook. Fl. Bor. Am. I. 69, t. 14. Fl. I. 116.)

a.) Apr. 4-23, 1868. Foothills near Carson City, Nev. 20 s.

b.) June 8, " W. Humb[t]. Mts. Nev.– Unionville cañon 2 "

Capparidaceæ.

132.– *Cleome integrifolium*, Torr. (Fl. I. 122.) Fragment in Salt Lake Valley

a.) Sept.), 1868. Near Provo River Valley, near mouth of Provo 5 "

b.) June 11, 1869. Black Rock point– South end of Salt Lake 1 "

c.) July 26, " Silver Creek cañon, near Parley's Park 1 "

133.– *C. serrulata*, Nutt. (Torr. Fl. 122.) Distinct from *C. lutea*, Hook.

a.) July 2), 1867. Truckee Valley, at the Big Bend, Nev. 11 s.

b.) Aug. 4, 1869. Carson Desert, Nev. Reed's Station 1 "

c.) May 13 & 20, 1868. Truckee & Humboldt Valleys, near Reed's 4 "

d.) July), 1868. Humboldt Valley, Nev. Abundant 1 "

134.– *C. lutea*, Hook. (Hook. Fl. Bor. Am. I. 70, t. 25. Torr. Fl. I. 122.) Seem fragment than the last & a much smaller plant; branched from base, racemes loose, filaments scarcely equalling the petals, fr[t] short

May 14, 1868. Steptoe Valley & Humboldt Lakes round flats 14 s.

VII.)

VIII.)

131
~~135~~ - Cleome sparsiflora, Nov. sp. Annua glabra, caule pedale flexuosa ramosa, ramis in unoplano expansis; foliis simplicibus vel 3-foliatis oblongis integris brevi petiolatis parvis (2-3") mucronatis sparsis; floralibus minutis; floribus parcis flavis; pedicellis 2"-longis; calyce parva; filamentis non petalis longioribus; siliquis linearibus teretibus subincurvatis stipite 4-6-longioribus; petalis unguem lato intus squamula nectarifera biauriculata instructo.

Aug. 5, 1867. Carson Desert, near Ragtown, Nev. 6 sp.

133
~~136~~ - Cleomella Mexicana, DC. var. ~~trifoliata~~ herbacea.

Sept. 4, 1868. Ruby Valley, Nev. Hot Springs 3 sp.

132
~~137~~ - C. parviflora, Gr. (Proc. Am. Acad. A. & S. VII. 520.) Differing from the last in the shorter stipe, smaller flowers, & more ovate ~~oblique~~ capsule.

July 8, 1868. Monitor Valley, Nev. Bank of Dry Creek ... 10 sp.

135
~~138~~ - C. ~~longipes, Torr.~~ (Pl. Wright. I. 11.)

June 23, 1868. Grass Valley, Nev. E. of Pinyon Range. Hot Springs. 2 sp.

134
~~139~~ - C. latifolia ... Nov. sp. Annua erecta glabra subramosa; foliis (½-3¼ long.) ovatis seu orbicularis obtusis mucronatis petiolatis; bracteis conspicuis simplicibus ovatis longe mucronatis petiolatis; racemis densis elongatis; floribus magnis flavis; petalis calycis longe acuminatis ovatis lobis 2-3 longioribus, filamentis brevioribus; capsulis biovulatis stylo gracili ~~acutis~~ mucronatis stipite (½-3/4') ~~pedicell~~ pedunculum aequantes multoties brevioribus.

May 11, 1868. Alkaline aqueous mud, Gleenbrook 4,500 ft. 4 sp.
June 3, 1868. Ft. Humbt. Mts., Nev. East foot hills 5,000 ft. 5 sp.

136
~~140~~ - Polanisia uniglandulosa, DC. var. parviflora. (P. Trachysperma, Torr. Fl. I. 669)

July 29, 1867. Truckee Mts., Nev. Canon N. west of Big Bend. (W. W. Bailey.) 6 sp.
Aug. 29, 1869. Jordan Valley, Utah. East foot hills. ... 10 "

Violaceae.

137
~~141~~ 136.– Viola palustris, L. (Trg. 72. I. 139.) Flowers white, veined with purple.

a.) July 8, 1869. Uintah Mts, Utah. Head of Pack's Canon 8,000 ft. 5 sp.

b.) " 14, " Wahsatch Mts, Utah. Shore of Cottonwood Lake. 9,000 ft. 4 "

138
~~142~~ 143.– V. cucullata, Ait.

Apr. 25 – May 4, 1869. Spring banks near Carson City, Nev. 9 sp.

a) June 13, 1869. Dungeon Range, Nev. Donnelly's Pass 6,000 ft. 1 sp.

b.) " 30, " Battle Mts., Nev. Stream bank. 6,000 ft. 1 "

c.) Aug. 3, " Ruby Valley, Nev. Border of Spring. 6,000 ft. 8 "

d.) May 17, 1869. City Creek canon, Utah 4,500 ft. 1 "

e.) June 22, " Wahsatch Mts, Utah – Parley's Park 6,500 ft. 1 "

~~143.– V. cucullata, Ait., var. cordata.~~

~~Apr. 25 – May 4, 1869. Spring banks near Carson City, Nev. 9 sp.~~

139
~~144~~ 144.– V. canina, L., var. sylvestris, Regel. (V. Muhlenbergii, Torr.)

a.) Aug. 3, 1869. Ruby Valley, Nev. Spring bank. In fruit. 6,000 ft. 7 sp.

b.) Sept. 20, " Humboldt Pass, Nev. Creek bank. In fruit. 6,000 ft. 2 "

c.) May 19, 1869. City creek canon, Utah. Stream bank. 4,500 ft. 5 "

d.) June 29, " Canon above Parley's Park, Utah. 6,000 ft. 1 "

e.) July 4, " Uintah Mts., Utah. Pack's canon, Shade of Pines. 7,000 ft. 3 "

f.) " 10, " Wahsatch Mts.– North fork of Provo canon. 7,000 ft. 1 "

g.) Aug. 4, " Uintah Mts, Utah. Lake Shore, head of Beaver Canon. 10,000 ft. 6 "

141
145.– V. Canadensis, L.–

July 13, 1869. Wahsatch Mts., Utah. Cottonwood canon, Fern fork. 7,000 ft. 7 sp.

141
~~146~~.– V. Nuttallii, Pk. The normal V. Nuttallii

a.) July 29, 1869.– E. Humboldt Mts. Deep shady limestone Canon. 6,500 ft. 3 sp.

b.) June 26, 1869. Parley's Park, Utah. Shade of Sage brush. 6,000 ft. 9 "

c.) July 5, " Uintah Mts.– Beaver canon, mountain side. 9,000 ft. 5 "

142
~~147~~.– V. Nuttallii, Pk., var. praemorsa. (V. praemorsa, Dougl.) Stipules lacinately toothed.

Apr. 14-24, 1869. Washoe Mts, Nev. King's canon, near Carson City. 5,000 ft. 15 sp.

143
~~144~~ Viola Nuttallii, Pl., var. pedunculata. (V. pedunculata, Torr.) A mountain or subalpine form, readily distinguished by its somewhat fleshy, more or less uniform, conspicuously veined leaves. Petals strongly tinged with purple. Stipules usually laciniately toothed.

a.) June 9, 1868. W. Humboldt Mts., Nev. Limestone cañons. 7-9,000 ft. 10 sp.
b.) " 12, " Dempsey Range, Nev. Near Granite Peaks. 7,000 ft. 1 "
c.) " 30, " Battle Mts., Nev. Near Peaks. Snow. 9,000 ft. 1 "
d.) July 24, " E. Humb^t. Mts., Nev. Peaks above Camp Ruby. Snow. 9,000 ft. 9 "
e.) May 17, 1869. Wahsatch Mts., Utah. Cañon near Salt Lake City. 6,000 ft. 1 "
f.) July 15, " " " " Divide above Cottonwood cañon. Snow. 9,000 ft. 1 "

Caryophyllaceæ.

~~145~~ 146. Saponaria Vaccaria L. (~~Saponaria~~ Vaccaria ~~vulgaris, Host. Nuttall. Hook.~~) Introduced. Common about the Mormon settlements of Utah, & spreading thence westward.

a.) July 2, 1868. Reese Valley, Nev. Irish Ranch. 1 sp.
b.) " 7, " Monitor Valley, Nev. By Overland Stage Road. 1 "
c.) " 25, " Ruby Valley, Nev. 2 "
d.) " 13, 1869. Jordan Valley, Utah. Mouth of Cottonwood cañon. 1 "

~~146~~ 147. Silene acaulis, L.

a.) Aug. 31, 1868. E. Humb^t. Mts., Nev. Peaks above Overland Ranch. 10,000 ft. 8 sp.
b.) " 3, 1869. Uintah Mts., Utah. Peak above Bear River Cañon. 11,000 ft. 5 "
c.) " 10, " " " " " west " " 11,000 ft. 8 "

~~147~~ 148. S. Douglasii, Hook.? (Hook. Fl. Bor. Am. I. 89. Torr. Fl. I. 190.)

a.) July 19, 1868. E. Humb^t. Mts., Nev. Cañon above Camp Ruby 7,500 ft. 6 sp.
b.) " 30, " " " Cañon above Sawmill. " " 5 "
c.) " 14, 1869. Wahsatch Mts., Utah. Ridge above Cottonwood Lake. 10,000 ft. 7 "
d.) " 20, " " " Peak west of Parley's Park. 9,000 ft. 4 "
e.) " 27, " " " Echo cañon, Hanging rock. 7,000 ft. 1 "
f.) Aug. 14, " " " Divide west of Parley's Park. 9,000 ft. 5 "
g.) " 19, " " " From Park, Cottonwood cañon 9,000 ft. 5 "

147
154.– S. Douglasii, Hook.?, var. with its tall stems (1½°) non-stricta, pairs of leaflets about four, oblong lanceolate, calyx one half longer (8"), petals less deeply bifid.

Aug. 15, 1864. E. Humboldt Mts., Nev. Peaks above Sawmill. 9,000 ft. 9 sp.

145
153.– S. Antirrhina, L.

a.) May 17 & 27, 1869. Wahsatch Mts, Utah. City creek cañon. 5 sp.

b.) " 21, " " " Foothills above Salt Lake City. 2 "

d.) June 11, " Black Rock – South end of Salt Lake. 1 "

c.) " 3, " Antelope Island, Salt Lake. 4 "

149
154.– S. Menziesii, Hook.

a.) July 29, 1867. ~~K. Humboldt~~ Truckee Mts. Nev. (W.W. Bailey.) 3 sp.

b.) " 6, 1864. Toiyabeh Mts., Nev. Foothills E. of Austin. Streambank 4 "

c.) Aug. 1, " Ruby Valley, Nev. Bank of Cave creek. 2 "

d.) May 19, 1869. Wahsatch Mts, Utah. – City Creek cañon 1 "

c.) June 29, " " " Peaks above Parley's Park 7,000 ft. 1 "

f.) " Same locality mountains 8 "

151
155.– Lychnis ~~apetala, L., var. a.~~ alpina, Regel Low, alpine form.

Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear River Cañon. 10,000 ft. 10 sp.

150
156.– L. apetala, L., ~~var. a.~~ Growing with the last but distinguishable at sight.

Leaves thin, less rigid, & nearly glabrous, rarely ciliate at base.

Same locality as 155. 11 sp.

152
157.– ~~S. & L. apetala, L., var. β, ramiflora.~~ ? Much taller & stouter (15-30') but stamens non-distinguishable. Resembles ~~Silene Drummondii, Hook.~~, but the styles are 5-fid, capsule 5-~~6~~ cleft, ~~not sessile~~. Sheaths hyaline. ~~Petals often 0 [illegible] S. Scouleri.~~ – Peduncles often 0 [illegible] nor margined.

a.) July 26, 1869. Weber Valley, Utah. Foothills near Township. 6,000 ft 1 sp.

b.) " 24, " Bear River Valley, Utah. Foothills near Evanston. " 2 "

c.) Aug. 12, " Uintah Mts, Utah. Ridge above Bear River Cañon. 9,000 ft. 3 "

150
154.– ~~L. fruticosa, Ch. & Sch.?~~ (Linn. V. 234.) Styles 6, petals 4-lobed, apparently white.

June 29, 1864. Limestone ridge E. of Robin Peak Range. Nev. 6,000 ft. 7 sp.

Aug. 4, " E. Humboldt Mts., Nev. Peak south of Stage Pass. 9,000 ft. 7 "

154
159.– Cerastium nutans, Raf.

a.) July 10, 1868. Huntington Valley, Nev. west foothills. 6,000 ft. 5 sp.

b.) June 24, 1869. Parley's Park, Utah 6,000 ft. 6 "

155
160.– C. vulgatum, L., var. Beeringianum, (C. Beeringianum, Ch. & Sch., Tent. Fl. I. 166.)

Aug. 3, 1869. Uintah Mts., Utah – Peak above Bear River Canon 10,000 ft. 8 sp.

156
161.– C. arvense, L.–

July 31, 1869. Uintah Mts, Utah. Bear River canon. edge of woods. 9,000 ft. 8 sp.

157
162.– Stellaria Jamesii, Torr. (T. & G. Fl. I. 183.) Leaves 1-2' in length.

a.) July 6, 1868. Toiyabeh Mts., Nev. Divide above Austin. 7,000 ft. 6 sp.

b.) " 20, " E. Humbt. Mts., Nev. Canon above Camp Ruby 7,000 ft. 5 "

c.) Aug. 18, " " " Ridge above Sawmill 9,000 ft. 4 "

d.) May 19, 1869. Wahsatch Mts, Utah. City Creek canon 6,000 ft. 4 "

e.) June 24, " " " Canon above Parley's Park. 6,000 ft. 2 "

158
163.– S. longipes, Goldie. (Hook. Fl. Bor. Am. I. 95. T. & G. Fl. I. 184.)

a.) July 6, 1868. Toiyabeh Mts., Nev. East of Pass, stream bank 6,000 ft. 3 sp.

b.) June 23, 1869. Parley's Park, Utah. Stream bank. 6,000 ft. 4 "

c.) July 31, " Uintah Mts., " Bear river canon 8,000 ft. 3 "

164.– S. borealis, Big. (Hook. Fl. Bor. Am. I. 94. T. & G. Fl. I. 185.) two forms.

a.) Aug. 7, 1869. Uintah Mts, Utah. Bear river canon – creek bank. 8,000 ft. 4 sp.

b.) " " " Near Scows locality. Leaves ovate. " 6 "

166
165.– S. crassifolia, Ehr. (D.C. Prod. I. 394.)

June 8, 1868. E. Humbt. Mts., Nev. Unionville, creek bank. 5,000 ft. 12 sp.

161
166.– S. umbellata, Turcz.?

a.) Aug. 27, 1868. E. Humbt. Mts., Nev. Lake shore, above Overland Ranch. 9,000 ft. 9 sp.

b.) " 4, 1869. Uintah Mts, Utah. Lake at head of Bear R. canon. 10,000 ft. 12 "

d.) " 12, " " " Ridge above " " 10,000 ft. 5 "

b.) July 15, " Wahsatch Mts, " Cottonwood canon, 9,000 ft. 10 "

162
167.– S. nitens, Nutt.? (T. & G. Fl. I. 185.) smooth below, viscidly pubescent above; sepals 1-nerved, about equalling the petals.

July 24, 1868. E. Humboldt Mts, Nev. Divide above Camp Ruby. 9,000 ft. 2 sp.

~~[illegible]~~ Collected also by Burke, "Snake River, Rocky Mts." — Intermediate between the preceding & following. Specimens of [illegible] from "Cedar [illegible], Nov. 24, between Colorado of Calif. & [illegible]" [illegible] (4?) near Camp [illegible] — approaching [illegible].

Specimens of [illegible] from N. [illegible], Brewer's 2703, Palmer's 355, [illegible] Shipman [illegible], Lyall's from Cascade Mts, 1860, & from [illegible] & the Rocky Mts, 1861, & Torrey's 37 [illegible], appear to be the same thing — varying in the degree of [illegible] & in the [illegible] of the [illegible], & [illegible] — ~~[illegible]~~ [illegible] [illegible] & A. [illegible]. [illegible].

[illegible]

XI.)

163
166.– Arenaria congesta, Nutt. (Torr. Fl. I. 196.).

a.) July 6, 1869. Uintah Mts., Utah. Divide above Duchesne River. 10,000 ft. 10 sp.

b.) " 30, " " " Bear river canon, foothills 5,000 ft. 12 "

c.) Aug. 24, " Wahsatch Mts., " Ridge above American Fork 6,000 ft. 6

166
169.– A. [illegible]

a.) July 20, 1869.– E. Humboldt Mts., Nev.– Ridge above Camp Ruby. 7,000 ft. 7 sp.

b.) " 27, " " " Peak above Ft. Ruby. 9,000 ft. 4 "

167
170.– A. formosa, Fischer [illegible]

Aug. 24, 1869. Wahsatch Mts., Utah. Ridge above American Fork. 6,000 ft. 5 sp.

165
171.– A. Fendleri, Gr. var. B. glabrescens (Pl. Fend. 13.) A slender, rather short leaved form. and [illegible]

a.) July 6, 1869. Toiyabeh Mts., Nev. East foothills of Pass. 6,000 ft. 10 sp.

b.) May 27, 1869. Wahsatch Mts., Utah. City creek canon 5,000 ft. 5 "

167
172.– A. pungens, Nutt. (Torr. Fl. I. 179.)

Sept. 15, 1867– Star Peak

a.) June 8, 1869. E. Humbt. Mts., Nev. Foothills, mouth of Coyote canon. 5,000 ft. 2 5 sp.

b.) July 9, " Diamond Valley, Nev. Foothills above Sulphur Sp.) 6,000 ft. 3 "

c.) " 24, " E. Humbt. Mts. " Peaks above Camp Ruby 9,000 ft. 5 "

173.– A. arcuata

Aug. 24, 1869. E. Humbt. Mts., Nev. Granite rocks, near Fremont's Pass. 6,500 ft. 10 sp.

169
174.– A. verna, L. (Hook. Fl. Bor. Am. I. 99. Torr. Fl. I. 181.) Including A. propinqua, Rich., A. hirta, Wormsk., & A. rubella, Hook.

Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear R. canon. 10,000 ft 8 sp.

170 – A. rupicola

171

175.- Arenaria arctica, Steven. (Hook. Fl. Bor. Am. I. 100, t. 34. Torr. Fl. I. 181.) Variable; probably including A. biflora, Wahl.

a.) Aug. 29, 1868. E. Humb^{t}. Mts. Nev. Ridge above Lake . 10,500 ft. 5 sp.
b.) Sept. 12, " Clover Mts. " Head of Bearing's Canon 10,000 ft. 2 "
c.) Aug. 4, 1869. Uintah Mts, Utah. Lake, head of Bear R. canon 10,000 ft. 3 "
d.) " 10, " " " Peak west of " " 11,000 ft. 3 "
e.) " 12, " " " Ridge East of " " 10,000 ft. 6.

172

176.- A. laterifolia, L. (Hook. Fl. Bor. Am. I. 102, t. 36. Torr. Fl. I. 182.)

July 7. 1869. Uintah Mts., Utah. Provo canon, shady bottom. 7,000 ft 12 sp.

173

177.- Sagina Linnaei, Presl. (S. procumbens, Torr. Fl. I. 177.)

a.) July 13, 1869. Wahsatch Mts., Utah. Cottonwood canon, stem gorge. 8,000 ft. 3 sp.
b.) " 14, " " " " " Stream bank, " " 8 "

174

178.- S. viralis, Fries.

Aug. 3, 1869. Uintah Mts, Utah. Peak above Bear River Canon. 11,000 ft. 1 sp.

179.- Spergularia media, Presl. (Gr. Man. 95.) Erect, branches spreading, glandular-pubescent above, and smooth, wingless.

a.) June 26, 1869. Parley's Park, Utah. Salt Lick. 6,000 ft. 20 sp
b.) July 21, " Same locality. 8 "

Portulacaceae.

176

180.- Portulaca oleracea, L. Introduced.

Sept. 1867. Unionville, Nev. (W. W. Bailey.) 3 sp.

177

181.- Talinum pygmaeum, Gray. (Proc. Am. Ac. A. S. VII. 332.) with the habit of a Claytonia; sepals persistent, entire or glandularly denticulate; petals white or rose color, slightly united at base, unequal, 5 or 6; stamens 4-7; stigmas 3-4; seeds few to many. Aug. 29, 1868. E. Humb^{t}. Mts., Nev. Peaks above Overland Ranch. 10,000 ft. 14 sp.
June 25, 1869. Parley's Park, Utah. Creek bank. 6,000 ft. 12 "
July 6, " Uintah Mts., " Divide above Duchesne river. 9,000 ft. 1 "
" 9. 4, " " " Head of Bear River canon. 10,000 ft. 14 "

178
182.– Claytonia lanceolata, Ph.

a.) June 25, 1868. Tobin Peak Range, Nev. Peak above Cumberland. 9,000 ft. 10 sp.
b.) July 20, " E. Humb[t]. Mts.– Canon above Camp Ruby 8,000 ft. 15 "
c.) " 24, " " " Divide " " 9,000 ft. 15 "
d.) Aug. 29, " " " Peaks above Overland Ranch 10,000 ft. 2 "
e.) May 17, 1869. Wahsatch Mts., Utah. Ridge near Salt Lake City 5,000 ft. 12 "
f.) June 25, " " " Ridge above Parley's Park. 7,500 ft. 1 "

179
183.– C. Caroliniana, Walt. var. Nevadensis.– Leaves oblanceolate, petioled or equaling the blade; flowers apetalous; cymes bulbiferous in the axil of the leaves– petals & sepals white, pink, among rocks.– Mt. Davidson.

a.) Apr. 29, 1868. Washoe Mts., Nev. Peak south of Mt. Davidson. 7,000 ft. 15 sp.
b.) May 13, " Truckee Mts., Nev. above Clarks station 5,000 ft. 4 "

180.
184.– C. arctica, Adams, var. megarrhiza, Gr. (Sill. Jour. XXXIII. 406.) Flowers small.

Aug. 4, 1869. Uintah Mts., Utah. Divide at head of Bear R. canon. 10,000 ft. 7 sp.

181
185.– C. perfoliata, Donn. (Hook. Fl. Bor. Am. I. 225. Pl. Fl. I. 200.) Also in:

a.) Apr. 15–22, 1868. Foothills near Carson City, Nev. 5,000 ft. 20 sp.
b.) May 16, " Trinity Mts, Nev. near Eagle Crag. " " 1 "
c.) June 3, " W. Humb[t]. Mts., Nev. East foot-hills, " " 5 "

186.– C. Chamissonis, Esch. & Led. (C. aquatica, Nutt. Fl. Fl. I. 201.)

a.) May 9, 1868. Truckee meadow, alkaline – S. of Glendale 8 sp.
b.) June 24, " Mt. Tobin Range, Nev. Cumberland canon, streambank. 6,000 ft. 12 "
c.) " 30, " Battle Mt. canon, Nev. streambank. 7,000 ft. 10 "
d.) " 24, 1869. Wahsatch Mts, Utah. Canon above Parley's Park. 6,500 ft. 10 "
e.) July 9, " Uintah Mts., " Above Heber City. Head of Provo canon, meadow. 6,000 ft. 6 "
f.) " 31, " " " Bear river canon, meadow. 6,000 ft. 8 "

183
187.– Sparganium umbellatum, Torr. (Pl. Frem. 4. t. 1.)

a.) May 9, 1868. Steamboat springs, near Washoe City, Nev. 5,000 ft. 8 sp.
b.) Aug. 27, " E. Humb[t]. Mts. Nev. Peaks above Overland Ranch. 10,000 ft. 11 "

X:)

El Clavicembalo [illegible] [illegible] [illegible] [illegible]

XIII:)

= Tillaea aquatica L.

IVa
1887.– Calyptridium

a.) May 11, 1867. Truckee Valley, Nev. Sandy sagebrush plain near Glendale 3 sp.
b.) July 5, " Monitor Valley, Nev. Sandy plain 7 "

1889.– Lewisia rediviva, Pk. (Hook. Fl. Bor. Am. I. 223. 1865. Fl. I. 677.) Cotyledons accumbent.

a.) May 9, 1867. Steamboat Springs, near Washoe City, Nev. 4 sp.
b.) " 19, " Trinity Mts., Nev. Foothills above lake 5,500 ft. 3 "
c.) June 7 to 10 " E. Humbt. Mts. Nev. Ridges above Unionville " " 16 "
d.) " 26, " Mt. Tobin Range, Nev. Ridge near Cumberland. 5,000 ft. 2 "
e.) " 14, 1869. Pilot Rock point – South end of Salt Lake " " 1 "

Elatinaceae.

IVb
1890.– Elatine (Crypta) tetrandra. Nov. Sp. Foliis lanceolatis acutis; floribus 4-meris. pedunculatis alternis 4-andris; capsulis 4-locularis; petalis calyce 2-longioribus; stipulis conspicuis.

Small, diffusely branching, procumbent.

Sept. 30, 1867. Goose Creek valley, Utah. muddy bank. 10 sp.

IVc
1891.– Bergia Texana, Seubert. (Elatine Texana, Hook. Fl. I. 67 V.)

Aug. 3, 1867. Carson River bottom, Nev. near Reed's station 8 sp.

Hypericaceae.

IVd
1892.– Hypericum Scouleri, Hook. (Hook. Fl. Bor. Am. I. 111. 1829. Fl. I. 160.)

a.) Sept. 5 to 11, 1867. W. Humbt. Mts., Nev. Wright's canon. Stream bank. 7,000 ft. 75 sp.
b.) June 27, 1867. Tobin Peak range, Nev. Cumberland canon. 6,000 ft. 2 "
c.) July 7, " Toiyabeh Mts., Nev. East foothills, stream bank " 4 "
d.) " 10, " Diamond Springs, Nev. Spring bank " 3 "
e.) " 26-Sept. 2, " E. Humbt. Mts. – Ruby valley, 8 canons. 6-8,000 ft. 5 "
f.) " 3, 1869. Uintah Mts., Utah. Pack's canon 7,000 ft. 3 "
g.) " 20, " Wahsatch Mts, Utah. Canon above Parley's Park " " 1 "

189
~~193~~ Hypericum mutilum, L. (Tor. Fl. I. 164.)

Aug. 27, 1868. E. Humbt. Mts., Nev. Canon above Overland Ranch. 9,000 ft. 1 sp.

Malvaceae.

190
~~194~~ Sidalcea malvaeflora, Gr. (Sida malvaeflora, Mex. Bound. Tor. Fl. I. 235 pl.) The larger flowered form; petals 9" long by 5" in breadth, emarginate, slightly oblique; outer staminate phalanges considerably longer than the inner.

a.) Aug. 1867. E. Humboldt Mts., Nev. Wright's canon. 1 sp.

b.) June 13, 1868. Dryden Range, Nev. Donnelly's Pass. Meadow. 6,000 ft. 2 "

c.) July 7, " Toiyabeh Mts., Nev. Eastern foothills, streambank. 2 "

d.) Sept. 9, " Humboldt Valley, Nev. Foot of Clover Mts., " 1 "

June 7, 1869 Antelope Island, Salt Lake - meadow 3 "

e.) June 26, 1869. Wahsatch Mts., Utah. Parley's Park 6,000 ft. 1 "

191
~~195~~ S. malvaeflora, Gr. With smaller flowers; petals 3"-6" long, more oblique; inner staminal phalanges equal to or longer than the outer.

a.) July 20, 1867. Truckee valley; near Glendale. (W. W. Bailey.) 2 sp.

b.) June 24, 1868. Regan's Valley, Nev. Foothills of Mt. Tobin Range. 5 "

c.) July 9, " Ruby Valley, Nev. 2 "

197
~~196~~ S. malvaeflora, Gr. With sterile flowers; petals nearly aborted, & glandularly ciliate.

June 27, 1868. Mt. Tobin range. Cumberland Canon. 6 sp.

~~197~~ ~~S. malvaeflora, Gr., var. albiflora.~~ 2. 190

June 7, 1869. Antelope Island, Salt Lake. Meadow. 3 sp.

193
~~198~~ S. candida, Gr. (Pl. Fend. 24. Pac. R.R. Rep. II 119, t. 2.)

July 26, 1869. Wahsatch Mts., Utah. Silver Creek canon 6,000 ft. 5 sp.

194
~~199~~ Malvastrum coccineum, Gr. (Sida coccinea, Dc. Tor. Fl. I. 235.)

May 17-21, 1869. Foothills near Salt Lake City. 6 sp.

June 3, " Antelope Island, Salt Lake, 1 "

Not met with west of Salt Lake.

[illegible] has its cells occasionally 2-seeded + is probably but a very tomentose form of S. [illegible] including, without doubt, [illegible]
(Wr. 1330)
S. wrightii, Gray. Ex is RB Anderson, Herb. Gray, ticketed "malvastrum tomentosum".
and 21 ; Palmer's S. angustifolia collection of 1867, Herb. Gray, ticketed "S. scabra". It is intermediate between
S. hindsiana + S. incana, + may eventually be found to unite the two in one polymorphous
species. It has a longer pedicel, fruit + calyx than S. incana, the capsules are more
frequently muricate above, + the fruit is covered with a dense stellate tomentum which in
analysis readily separates in masses — leaves subcordate-ovate, obtuse, crenate to base, narrow sinus closed at base —

205 [illegible] Nuttallianum, ? var. a apparently a coarsely lobed form of [illegible])

2. [illegible], is the same as S. incana, var. B. [illegible], a narrower leaved almost lobeless form
of which is S. angustifolia, Nuttall. - S. pedatifidum (Malvastrum pedatifidum, Gr., [illegible] is found to
have 1-2 subcells) includes S. incana, var. [illegible], with [illegible]

195

~~200.~~ – Malvastrum coccineum, var.

a.) May 20, 1868. Foothills east of Humboldt Lake, Nev. 3 sp.

b.) " 30, " Trinity Mts., Nev. Foothills near Arana 3 "

c.) June 3, " ~~W.~~ Humb[t] Mts. Nev. Foothills. 5 "

d.) " 18, " " " " Mouth of Coyote canon 2 "

e.) " 27, " Regan's Valley, Nev. 2 "

f.) July 3, " Reese River Valley, Nev. Foothills near Austin 3 "

g.) Sept. 23, " Holmes' Creek Valley, Nev. Foothills. 3 "

h.) Oct. 1, " Goose Creek Mts., Utah. near City of Rocks. 2 "

200
~~199~~
~~201.~~ – Sida hedraeca, Torr. (Malva hedraeca, Dougl. ex. Hook. Fl. I. 22.) Varying in size of the flowers, length of the pedicles, & hairiness & dentation of the leaves.

a.) Oct. 7, 1868. Blue Spring station, above Salt Lake Valley. Provisak. 3 sp.

b.) June 20, 1869. Promontory Points, Salt Lake. Subacute 5 "

~~198~~
~~202.~~ – Sphaeralcea Emoryi,
197

b.) May 15, 1869. Truckee Mts., Nev. Foothills in the Pass. 5,000 ft. 2 sp.

a.) July 26, 1867. Near same locality. (W. W. Bailey.) 2 "

c.) " 7, 1868. Rocky & Monitor Valleys. Foothills. 5 "

d. " 12 & 29 " Ruby Valley, & Foothills of E. Humb[t] Mts. 5 "

196
~~203.~~ – Malvastrum Munroanum,

a.) June 12 & 15, 1869. Stansbury Island, Salt Lake. 4 sp.

~~198.~~
~~203.~~ [b.) " 20, " Promontory Point, " 2 "]

c.) " 29, " Parley's Park, Utah. Foothills. 3 "

d.) July 26, " Wahsatch Mts., Utah. Silver Creek canon 1 "

e.) " 28, " Bear River valley – near Evanston. 1 "

199
~~204~~.- Sphæralcea acerifolia, Nutt. (Trg. 71. I. 228.)

a.) Aug. 6-19, 1869. E. Humboldt Mts., Nev. Streambanks. 6-7,000 ft. 155 sp.
b.) Sept. 21, " Mts. at head of Humboldt river. streambank. 1 "
c.) June 24, 1869. Wahsatch Mts., Utah. above Parley's Park. 1 "
d.) July 15, " " " Over C. Cottonwood Divide 1 "

p 57

Linaceæ.

201
205.- Linum perenne, L.

a.) Sept. 19, 1867. W. Humboldt Mts. Nev. Star Peak. 10,000 ft. 5 sp.
b.) " 20, " " " Star canon 5,000 ft. 3 "
c.) June 10, 1869. " " Foothills near Unionville 5,000 ft. 6 "
d.) July 2, " Reese River Valley, Nev. below Cripple's 5,000 ft. 2 "
e.) " 27, " E. Humb.t Mts. Nev. Peak above Ft. Ruby 7-10,000 ft. 2 "
f.) May 21, 1869. Ridge above Salt Lake City, Utah 5,000 ft. 1 "
g.) June 24, " Parley's Park, Utah 6,000 ft. 2 "

202
~~206~~.- L. ~~perenne~~ var. ? Perenne glabrum, caulibus pluribus basi fruticulosa adscendentibus, 1-2. spithamæis supra angulatis; foliis crebris alternis linearibus obtusis; glandulis stipularibus nullis; floribus paniculatis, flavis; pedicellis calyce longioribus; sepalis ovatis acutis margine glandulosis; filamentis basi dilatatis; stylis 5 stigmatibus quinquelobis; capsula globosa cuspidata 10-valvi calyce subæquilongis. Petala 4" long, capsules 1½" in Diameter.

a.) July 4, 1869. Uintah Mts., Utah. Ridge above Pack's canon. 8,000 ft. 6 sp.
b.) " 14, " Wahsatch Mts., " Ridge above Cottonwood Lake. 10,000 ft. 9 "
c.) Aug. 12, " Uintah Mts., Utah. Ridge above Bear R. canon. 9,000 ft. 3 "

Geraniaceæ.

203
207.- Geranium Richardsonii, F. & M. (G. albiflorum, Hook.- Fl. Bor. Am. I. 116. t. 40. Trg. 71. I. 206.) Abundant in mountain canons. Flowers white, or more usually various shades of purple. Pubescence variable. a.) June 8, 1868. W. Humb.t Mts., Nev. Unionville canon 6,000 ft. 2 sp.
b.) " 25, " Mt. Tobin Range, Nev. Cumberland Canon " " 4 "
c.) July 20 & 24, " E. Humb.t Mts., Nev. Canons above Camp Ruby. 7,000 ft. 7 "
d.) Aug. 29, " " " Peaks above Overland Ranch. 9,000 ft. 1 "

e.) May 21, 1869. Wahsatch Mts.-Utah. Beaver ridge above Salt Lake City. 5,000 ft. 2 sp.

f.) June 10, " Black Rock Station, South end of Salt Lake 2 "

g.) " 25, " Parley's Park, Utah - Canon 7,000 ft 5 "

h.) July 10, " Uintah Mts, Utah. Pack's canon 8,000 ft 5 "

204 204.- Geranium Caroliniannum, L.- Specimens (c.) are few flowered, fruiting pedicels much elongated.

a.) Sept. 10, 1867. W. Humbt. Mts., Nev. Unionville canon 2 sp.

b.) June 4, 1868. Antelope Island, Salt Lake. Low canon. 8 "

205 [c.) July 10, " Wahsatch Mts. Utah. Canon of N. fork of Provo river. 7,000 ft. 2 "

revise types.

206 209.- Erodium cicutarium, L'Her. Abundant in Utah in some localities & affording good pasturage.

a.) Oct. 1867. W. Humbt. Mts., Nev. Unionville. (W.W. Bailey.) 1 sp.

b.) Dec. " Foothills west of Pyramid Lake. In bloom. —

c.) Apr. 15-May 9, 1868. Foothills of Washoe Mts, near Carson & Washoe city. 12 "

d.) June 8, " Same locality as (a.) 4 "

e.) " 11, 1869. Black Rock - South end of Salt Lake. 4 "

209 210.- Floerkea proserpinacoides, Willd. (7.09. 72. I. 210.) The most western locality recorded.

June 24, 1869. Wahsatch Mts, Utah. Parley's Park camp. 6,000 ft. 15 sp.

208 = Ptelea trifoliata. = Rutaceae

Celastraceae.

211.- Pachystima myrsinites, Raf. (Crossopetalum myrtifolium, Nutt. - 7.09. 71. 259.) Abundant in the Wahsatch & Uintah Mts.-

a.) Sept. 3, 1868. East Extremity of Raft River Mts, Utah. 6,000 ft. 6 sp.

b.) May 17, 1869. Wahsatch Mts, Utah. City creek canon. 4 "

c.) June 25, " " " Above Parley's Park. 3 "

Rhamnaceae.

210 209 211.- Ceanothus velutinus, Dougl. (Hook. Fl. Bor. Am. I. 125, t. 45. 7.09. 71. I. 265.) Leaves nearly glabrous

Lanceolate. a.) Sept. 10, 1867. W. Humbt. Mts.- Council Peak. 9,000 ft. 7 sp.
b.) July 10, 1868.- Diamond Mts., Nev.- Stag - Pass 7,000 ft 2 "
c.) " 30, " E. Humbt. Mts.- Peak above Sawmills. 8,000 ft. 2 "
d.) June 29, 1869. Wahsatch Mts, Utah. Canon above Parley's Park 7,000 ft 1 "

211.
~~213~~ – Ceanothus ~~cordulatus, Kell~~ a, var. glabra found only on the E. Hum[b]t. Mts.
Mainly glabrous throughout, flowers white, in loose racemes, leaves somewhat coriaceous,

a.) July 27, 1868. – E. Humb[t] Mts., Nev. Peak above Ft. Ruby. 8,000 ft. 4 sp.
b.) " 30, " " " Peaks above Sawmill. 8,000 ft. 6 "
c.) Aug. 12, " " " near same locality. 2 "

212
~~214~~. – C. ~~rigidus, Watt., var~~ prostratus. Bush much branched, prostrate. Mainly C. prostratus
of Bentham is apparently the same with the leaves but tridentate at apex.
Seen only on the Washoe Mts. – under pines.

Dec. 4, 1867. Pearine Mt., Nev. 7,500 ft. 3 sp.
May 4, 1868. – Sandy foothills, head of Washoe Lake. 5,000 ft. 10 "

Sapindaceae

213
~~215~~. – Acer grandidentatum, Nutt. Frequent in the Wahsatch Mts, & sometimes
though rarely attaining 1° in diam. & 30-40° in height. The leaf is like that of
A. macrophyllum, Pk. ~~as figured in Hook. Fl. I. p. 96~~, but not exceeding
3-4' in diameter. Flowers loosely corymbed. Fruit broadly winged.

May 17, 1869. City creek canon. In flower. 6 sp.

214
~~216~~. – A. glabrum, Torr. var. tripartitum. Rare in the E. Humboldt Mts., ~~more frequent~~
in the Wahsatch. Never more than a shrub; leaves ternate or rarely
3-lobed on the same branch.

a.) July 20 + 29, 1868 + Aug. 24. – E. Humb[t] Mts. – Canons, in shade of rocks. 6-7,000 ft. 11 sp.
b.) June 28, 1869. Wahsatch Mts, Utah. Peaks above Parley's Park 7-8,000 ft. 5 "
c.) July 14, " " " Above Cottonwood Lake 10,000 ft. 6 "
d.) Aug. 3 " Uintah Mts. – Ridge above Bear River canon, 8,000 ft. 1 "
e.) " 24 " Wahsatch Mts. – American Fork canon. 5,000 ft. 7 "

215
~~217~~. – Negundo aceroides, Moench. – Common in the Wahsatch Mts., but not ~~west~~ east
Leaves usually 3-foliate, coarsely serrate.

May 19, 1869. – Wahsatch Mts., City creek canon. 4, sp.
Aug. 27, " " American Fork canon 2 "

Anacardiaceæ.

214.– Rhus glabra, L.– On the foothills of the Wahsatch Mts, in Salt Lake Valley.

July 13, 1869.– Mouth of Cottonwood cañon. 7 sp.

217
215.– R. Toxicodendron, L.– Cañons of the Wahsatch Mts.– Erect; ~~Pubescent~~ White.

a.) May 14 ~~1869~~, 1869. City Creek cañon. 2 sp.

b.) June 3, " Antelope Island, Salt Lake. 1 "

216
220.– R. aromatica, Ait., var trilobata, Gr.– (R. trilobata, Nutt.– T&G. 71. I. 219.) Abundant on the foothills & in the cañons of the Wahsatch & in the adjacent valleys.

a.) Oct. 3, 1866.– ~~North~~ foothills of Rapt. River Mts, Utah. Clear Creek Station. 10 sp.

b.) " 7, " East foothills of Promontory Range, Utah. 2 "

c.) May 17, 1869. Foothills near Salt Lake City 11 "

d.) July 12, " Utah Valley, near Battle Creek. 3 "

Leguminosæ.

219
221.– Thermopsis fabacea, DC.– var. montana, Gr. (T. montana, Nutt.– T&G. 71. I. 344.) ~~This seems to be both the T. montana, Nutt. and T. macrophylla, Hook.~~ On stream banks, but not frequent. Rarely more than a single plant in one locality. Stems numerous from the root, in a dense clump.

a.) June 9, 1866. W. Humbt Mts., Nev. Unionville. 7 sp.

b.) " 26, " Mt. Tobin Range, near Negro Hills, Nev. 2 "

c.) July 11, " Ruby Valley, Nev. 2 "

d.) ~~July~~ Aug. 25, " E. Humbt Mts.– Cañon above Government Ranch. 3 "

e.) ~~June~~ 23, 1869. Parley's Park. Utah. 1 "

220
222.– Lupinus pusillus, Pk. (T&G. 71. I. 341) Leaflets 4–6, usually 5; the dense villous pubescence upon their under surface, straight & appressed; ~~seeds~~ orbicular, flattened.

a.) May 11, 1866.– Truckee Valley, Nev. Dry foothills near Glendale. 15 sp.

b.) " 21, " ~~Humboldt~~ Valley, Nev. Sand Dunes, Cooper's Ferry. 1 "

~~c.) July 10, 1869. Hobson Valley, Utah.– Dr, rounded.~~ "

c.) June 15, 1866. Unionville Valley, Nev. Mouth of Dry Cañon 1 "

221
223.– Lupinus *nusillus*, var.?? – upper lip of calyx nearly obsolete, membranaceous, lower lip entire, or somewhat 2-3-toothed and occasionally with a short accessory tooth at its junction with upper lip. – longer stamens apparently sterile; sides of keel adnate to tube of stamens.

a.) May 13-30, 1869. Humboldt Valley, Nev. – Foothills from the Truckee ridge of the Sierra to Oreana. 8 s/p.

b.) June 3-9, " W. Humboldt Mts., Nev. – High foothills & middle cañons. 6-8,000 ft. 5 "

2.) " 12, " Dunglen Range, Nev. Dry sandy ridges. 6,000 ft. 1 "

c.) July 26, " E. Humbt Mts. – Foothills of Ruby Valley. 6,000 ft. 1 "

d.) June 3?/1869. Antelope Island, Salt Lake 2 "

e.) " 15, " Carrington Island, Salt Lake 1 "

222
224.– L. ..... with abnormal racemes of flowers in addition to the ordinary ones; pedicels elongated above the leaves, florets reduced in all their parts, scattered, & usually sterile.

June 29, 1869. Foothills near Summit Spring, Nev. – E. of Battle Mt. – 8 s/p.

223
225.– L. *unciales*, var. sp. – Annua humilis unciales villosus diffuse ramosus foliosus; floribus parvis, solitariis axillaribus, pedunculis foliis aequantibus vel brevioribus; leguminibus 2-spermis; foliolis 5 oblongo-spatulatis obtusis. – Calyx deeply bilabiate, with a short oval bract; upper lip deeply 2-cleft, lower larger, 3-toothed, middle tooth small. Vexillum obovate, shorter than the wings & keel, sides scarcely or all reflexed; wings free or but slightly united at top; keel rather obtuse. Stipules short, adnate, obtuse, often wanting. Flowers subsolitary with keel tipped with purple, 2½" long; legumes 4-5" by 2". Leaves on ¼-½' petioles, leaflets ½" long.

a.) May 14, 1869. Foothills of the Truckee, Nev., in the Pass. 10 s/p.

b.) June 12, " Dunglen range, Nev. Dry sandy ridge 5 "

224
226.– L. *parviflorus*, Nutt. – (Torr. Pl. I. 3) 5.) On shaded mountain sides throughout the Wahsatch.

a.) June 25, 1869. Wahsatch Mts., Utah. Above Parley's Park. 8,000 ft. 6 s/p.

b.) July 10, " " " Cañon of North fork of Provo Riv. – 7,000 ft. 1 "

c.) " 14, " " " Cottonwood cañon 5,000 ft. 1 "

d.) " 15, " " " Over Cottonwood Divide, 3° high, 6,000 ft. 1 "

e.) Aug. 12, " Uintah Mts., Utah. Ridge above Bear River Cañon. 9,000 ft. 2 "

227.- Lupinus ~~caxiflorus~~ flexuosus, Lindl (Torr. & Fl. I. 377.) Variable. The most common species. Native name = Chi-si-wán-ope - not eaten. Flowers blue or white.

a.) Apr. 23, 1868. Foothills near Carson City, Nev. 15 sp.
b.) May 27, " " of Trinity Mts., near Orana, Nev. 4 "
c.) June 3, 68 " " of W. Humboldt Mts., near Unionville 16 "
d.) " 12, " Dougles Range, foothills of Pleasant Valley 1 "
e.) " 23, " " " " of Grass Valley. 2 "
f.) " 24, " Mt. Tobin Range. " of Regan's Valley 1 "
225.
~~1. 2 3 4~~ g.) " " " Regan's Valley 1 "
~~Lupinus caxiflorus~~ h.) July 20, " E. Humbt. Mts. Nev. Ridge above Camp Ruby. 7,500 ft. 6 "
i.) " 28 & Aug. 1 " Ruby Valley 6,000 ft. 3 "
j.) Aug. 28, " E. Humbt. Mts.- Peaks above Overland Ranch. 9,000 ft. 2 "
~~k.)~~ ~~May 17 & 29, 1869. Wahsatch Mts. Utah. Foothills near Salt Lake City~~ 4 "

228.- L. ~~+ 231 bis.~~ -

~~Lupinus flexuosus, Lindl.~~ 1 "

July
July 10, 1869.- Wahsatch Mts, Utah. Provo Canon. Dry foothills. 6 sp.
" " " " Timpanogos Mt. 1 "

229.- L. ~~Lupinus caxiflorus, Dougl.~~ = Torr. 45, near Empire City. Sp. Nev. M.

~~Lupinus plurifolius, Gray~~

227 sp. ft.-
a) July 31, 1867.- Washoe Mts., Nev. East of Big Bend of Truckee.- 7,000 ft. 25 sp.
b.) Sept. 8, " W. Humbt. Mts.- Wrights Canon. (W.W. Bailey.) " " 3 "

230.- L. ~~Lupinus plurifolius, Gray~~ Marbles, which Gray in Pl. Wheel. says is ~~Torr.~~ Parry, Thurber

a.) Sept. 15, 1868.- Humboldt Valley, Nev. Foothills of Clover Mts.- 2 sp.

233
~~231.~~ - L. ~~Lupinus caxiflorus, Dougl. var. Torr.~~ - No authentic specs in Humb. Cr. - the only ones in W. Rumsey - answers with Brewer's description, I do not identify it

a.) June 15, 1868. W. Humbt. Mts.- Mouth of Bloody canon. 15 sp.
~~b.) June 3, 1869. Antelope Island, Salt Lake~~ 1 "
229 c.) July 10, " Wahsatch Mts., Timpanogos ridge in Provo Canon 2 "

J. Kingii

231
~~232~~.– Lupinus caespitosus, Nutt.– (Torr. 3 Fl.) Low, 6-10'; leaves upon long petioles, equalling or exceeding the stems; bracts long, equalling the flowers, uppermost ones often flowerless
July 10, " Hobin Valley, Utah.– Dry roadside. 7 "
July 20, 1869. Parley's Park, Utah. Dry meadow. 7 sp.

232
~~233~~.– L. leucophyllus, Lindl.

July 9, 1869. Hebber Valley, Utah. Meadow at head of Provo canon. 6 sp.

230
~~234~~.– L. [illegible], Ph. – The first spec. are more strict than 227 + have silky [illegible]
[illegible] 1 sp.

June 26, 1869.– Wahsatch Mts, Utah.– Foothills of Parley's Park. 2 sp.

235.– Medicago sativa, L. Doubtless introduced.

Oct. 10, 1869. Mts Humboldt Mts., Nev. Unionville canon. 1 sp.

236.– Melilotus alba, Lam.– (M. leucantha, Koch. Torr. Fl. I. 321.) Introduced.

May 21, 1869. Foothills near Salt Lake City.– Stream bank 1 sp.

237.– Trifolium longipes, Nutt.– (Torr. Fl. I. 314.) Flowers often deflexed.

a.) June 27, 1869. Mt. Tobin Range, near Cumberland.– Stream bank. 6,000 ft. 12 sp.
b.) " 23, 1869. Parley's Park, Utah.– Stream bank. " " 6 "
c.) " 24, " Canon above Parley's Park.– A variety. 1 "
d.) July 31, " Uintah Mts, Utah. Bear River canon.– meadow. 8000 ft. 4 "
e.) Aug. 2, " " " Ridge above same canon 9,000 ft. 1 "

234.– T. nanum, Torr.– (Torr. Fl. I. 314.)

Aug. 3, 1869.– Uintah Mts, Utah. Peak above Bear River Canon. 11,000 ft. 9 sp.

239.– T. dasyphyllum, Torr.– (Torr. Fl. I. 315.)

a.) Aug. 3, 1869.– Uintah Mts.– Same locality as the last. 11,000 ft. 6 sp.
b.) " 12, " " " Ridge above same canon. 10,000 ft. 2 "

240.– T. gymnocarpum, Nutt.– (Torr. Fl. I. 314.)

June 24 & 26, 1869.– Wahsatch Mts, Utah.– Foothills, Parley's Park.– 9 sp.

241.– Trifolium ~~Andersonii, Gr.?~~ (Bot. Am. Or. a. 45. VI. 522.) ~~Kenr. Rep.~~

July 29. 1869.– Medicine Butte Hills, Utah. Cedar Peak above Evanston. 7,000 ft. 10 sp.

242.– T. Parryi, Gr. (Sill. Jour. XXXIII. 409.)

Aug. 4, 1869.– Uintah Mts.– Bear River Canon, shade of woods– 8,500 ft. 125 sp.

243.– T. microcephalum, Pk.– (Trans. 71. I. 317.)

June 26, 1867.– Tobin Peak Range, Cumberland canon.– Stream bank. 6000 ft. 11 sp.

244.– T. variegatum, Nutt.– (Trans. 71. I. 317.)

a.) July 26, 1867.– Truckee Meadow, at the Big Bend 10 sp.

b.) June 24 & 25, 1867.– Mt. Tobin Range,– Stream banks near Cumberland, 5 "

c.) Aug. 25, " Ruby Valley, Meadow. ? "

245.– T. fimbriatum, Lindl.– (Trans. 71. I. 317.) Calyx teeth entire. Leaflets ½–1' in length, obovate to linear lanceolate.

a.) July 15, 1867. Truckee bottoms, at Glendale, Nev. (W. W. Bailey.) 7 sp.

b.) " 6, 1867. Toiyabee Mts.– Nev. Canon east of Austin. 6000 ft. 3 "

c.) " 25, " Ruby Valley, Nev. " ? "

246.– T. cyathiferum, Lindl.– (Trans. 71. I. 320.)

a.) July 27, 1867.– Truckee Meadow, Nev. at the Big Bend. 1 sp.

b.) June 27, 1867.– Mt. Tobin Range, Nev. Cumberland canon. 6,000 ft. 5 "

c.) July 10, " Huntington valley, Nev. East foothills– stream bank. 3 "

~~247.~~ 246 bis.– Hosackia Purshiana, Benth.

a.) July 27, 1867.– Truckee Meadow, Nev., at the Big Bend. Sandy river banks. 110 sp.

b.) Aug. 5 " Same locality. (W. W. Bailey.) 6 "

~~248.~~ 249.– Psoralea lanceolata, Pk. (Trans. 71. I. 299.)

June 13, 1867. Simpson Range, Nev. East foothills, in Grass Valley– 3 sp.

" 4, 1869. Antelope Island, Salt Lake 3 "

" 21, " Salt Lake valley, roadside near Farmington 6 "

VII.

250
~~249~~.- "Dalea polydenia, Torr. MSS."

July 26, 1867.- Border of Truckee County, near the Big Bend. (W.W. Bailey.) 1 sp.

251
~~250~~.- Close to Dalea spinosa, differing in longer calyx [illegible] & pinnate leaves - otherwise not closely corresponding.

Aug. 11, 1867.- Hot Spring Mts., Nev.- Sandridge of high canon 6,000 ft. 2 sp.

~~[illegible]~~

251.- Astragalus diphysus, Gr. (Pl. Fendl. 34.) Variable in the size & acumination of the legumes, which are often mottled, & in the density of the racemes. Stems often 18' long, recumbent or suberect. Occasionally with acute hairs.

~~[illegible]~~

a.) May 15, 1868. Trinity Mts., Nev. Sage plains at south extremity 1 sp.

b.) June 18, " W. Humboldt Mts.- east base, near Unionville 3 "

c.) July 6, " Toiyabeh Mts., Nev. Canon above Austin. 6000 ft. 4 "

d.) " 20, " E. Humboldt Mts.- Canon above Camp Ruby 7-8,000 ft. 12 "

e.) " " 27, " " " " Divide above Ft. Ruby, 8,000 ft. 2 "

~~[illegible]~~

~~252~~ 253.- A. lentiginosus, Dougl. (Hook. Fl. Bor. Am. I. 151.) Legumes nearly globose, with short acumination.

a.) May 12 & 13, 1868. Foothills of Truckee Pass, Nev. 5,000 ft. 4 sp.

b.) June 8, " W. Humboldt Mts. Nev. Canon above Unionville. 8000 ft. 1 "

254
~~253~~.- A. Fremontii, Torr. 252a.b. (Bot. Whipp.-Exp. IV. 80.) Variable in the size & acumination of the legumes, which is sometimes mottled. In Bailey's specimens the flowers are unusually large. Leaflets 7-10 pairs. Stem usually more or less flexuous. Confined to the low dry valleys.

a.) July 26, 1867. Truckee Valley - edge of the Desert. (W.W. Bailey.) 1 sp.

b.) Aug. 4, " Canon Desert, near Reed's Station 1 "

c.) Sept. 27, " Unionville Valley - alkaline flats 6 "

d.) May 30, 1868. Humboldt Valley, Nev. near Oreana 7 "

e.) June 12, " Pheasant Valley, Nev.- East of Stephen Range. 1 "

f.) " 23, " Grass Valley, " " " near Hot Springs 2 "

g.) July 2, " Reese River Valley, Nev. near mouth 1 "

=270

257
~~254~~.– Astragalus Andersonii, Gr.– (Proc. Am. Acad. A. & S. VI. 524.)

May 9, 1868.– Washoe Mts., Nev.– Rocky foothills below Washoe City. 2 sp.

260 California, Nev
~~258~~.– A. Mortonis, Nutt.:– (A. spicatus, Nutt. Trg. Fl. I. 336.)

a.) July 16, 1867.– Truckee Valley, near Glendale, Nev. (W. W. Bailey.) 3 sp.

b.) " 6, 1868.– Toiyabeh Mts, Nev.– Canon above Austin, Streambank. 7,000 ft. 2 "

c.) " 24, " Ruby Valley, Nev.– Creek bank. 6,000 ft 2 "

d.) Aug. 6, " E. Humboldt Mts., Nev.– Canon on brook S. fk. Marsh. 8,000 ft. 4 "

e.) " 25, " " " Canon above Government Ranch. " 6,500 ft. 4 "

~~259~~ [f.) July 10, 1869. Wahsatch Mts, Utah. Provo Canon – slide 4 "

g.) " 26, " Bear River Valley, Utah. Near Evanston 3 "

261
~~256~~.– A. hypoglottis, L.– (A. gouiatus, Nutt.– Trg. Fl. I. 330.) 6'-2° high.

a.) Aug. 6, 1868.– E. Humd.t Mts., Nev. Streambank in canon on W. side. 6,000 ft. 1 sp.

b.) Sept. 22, " Canon above Humboldt Pass, Nev. streambank. 6,000 ft. 5 "

c.) June 23, 1869. Parley's Park, Utah. " " " 6 "

d.) July 3, " Uintah Mts., " Silver-creek canon " 2 "

e.) " 9, " " " Canon above Kamas Prairie 7,000 ft 2 "

f.) " 26, " Wahsatch Mts., Silver creek canon 6,000 ft. 4 "

262
~~255~~.– A. Nuttallianus, DC.– Legumen with scattered hairs.

June 12, 1869.– Stansbury Island, Salt Lake. 7 sp.

263
~~257~~.– A.–: ~~Nevada~~ near [illegible]

June 29, 1868. Foothills near Summit-Springs, W. of Battle Mt. 3 sp.

264
~~259~~.– A. [illegible] – No description.–

265
[a.) May 11, 1868. Rocky foothills near Truckee pass, Nev. 3 sp.

b.) June 13, " Dimples Range, Nev. Ridge near Donnelly Pass 6,000 ft. 3 "

c.) " 23, " " " Near Spatsing's Pass 3 "

d.) " 25, " Mt. Tobin Range, " Divide above Cumberland 7,000 ft. 3 "

e.) July 6, " Toiyabeh Range. " Divide above Austin 6,000 ft. 1 "

XII

XIII

XIV

~~260.~~ 266

~~260.~~ – Astragalus aboriginum, Rich. (Phaca aboriginorum, Hook. – Fl. I. 346.)

Aug. 24, 1868. E. Humbt Mts, Nev. Peak above Overland Ranch. 11,000 ft. 6 sp.

~~261.~~ 267

~~261.~~ A.

[illegible]

Aug. 24 + 29, 1868. – E. Humbt Mts., Nev. Peaks above Overland Ranch. 10,000 ft. 10 sp.

~~262.~~ 268

~~262.~~ – A. [illegible] Nov. sp.? near A. distortus

a.) Apr. 23 + 29, 1868. Washoe Mts. – Mountain ridge north of Carson. 6,000 ft. 4 sp.

b.) May 14 + 16, " Trinity Mts, Nev. Southern foothills, 4,500-5,000 ft. 2 "

c.) " 27 + 30, " " " Foothills west of Virginia 5 = 6,000 ft. 5 "

d.) June 7 + 10, " E. Humbt Mts., " near Unionville. 2 "

e.) " 14, " " " " 5 "

~~263.~~ 269

~~263.~~ A.

[illegible] probably near to A. diphysus

a.) June 14, 1868. W. Humbt Mts, Nev. – Divide above Bloody canon. 8,000 ft. 5 sp.

b.) July 24, " E. Humbt Mts., Nev. Divide above Camp Ruby. – 8,000 ft. 10 "

c.) " 25, " " " Peak above Fl. Ruby. 9,000 ft. 2 "

d.) " 31, " " " Peak above Sawmill 10,000 ft. 15 "

e.) Sept. 10, " Clover Mts., Nev. Highest Peak 11,000 ft. 3 "

f.) May 13, 1869. Plains east of Cheyenne – Bottle fed form 1 "

~~264.~~ 270

~~264.~~ A. Kennicottii, Gr. – With [illegible] (Silv. Synopt. XXXIII. no. 410.) Less hairy & imperfectly sulcate-ventrally.

[illegible] Wahs, var.

a.) May 17, 1869. Foothills near Salt Lake City 45 sp.

b.) June 3, " Antelope Island, Salt Lake 8 "

255
~~266.~~ Astragalus malacus, Gr.— (Proc. Am. Acad. A. & S. VII. 336.)

a.) Apr. 23, 1864.— Foothills near Carson City, Nev. 5 sp.

b.) May 11, " Foothills of Truckee Valley, near Glendale. 4 "

c.) " 14, " Trinity Mts., Nev. Foothills above Humb.t Lake 2 "

d.) " 27 & 29, " " " " Canon west of Verdi 5 "

272
~~276.~~ A. orthocarp[illegible] —Grey & carp — new sp. — Distinguished by having [illegible]

a.) May 16, 1864.— Trinity Mts., Nev. Canon west of Humb.t Lake 5,000 ft. 2 sp.

b.) " 20, " W. Humb.t Mts.— Canon above Coopers Ferry 6,000 ft. 2 "

c.) June 10 & 14, " " " Foothills near Unionville. 2 "

d.) " 29, " Range west of Battle Mt. near Summit Spring. 2 "

e.) Aug. 1, " E. Humb.t Mts.— Foothills in Ruby Valley. 1 "

273
~~277.~~ A. Purshii, Doug.? (Fl. I. 336.)

a.) Apr. 30 & 29, 1864. Washoe Mts., Nev. Foothills near Carson 14 sp.

b.) May 16-27, " Trinity Mts. Nev. " 12 "

c.) June 3, " Humb.t Mts. Nev. Foothills below Unionville 2 "

d.) " 24, " Mt. Tobin Range, Nev. " near Bardman's Pass. 1 "

e.) July 20, " E. Humboldt Mts., Nev. Canon above Camp Ruby — 7,000 ft. 1 "

274
~~278.~~ A. Utahensis, Torr.— (Bot. of R.R. Rep. II. 120.)

a.) May 9, 1864.— Washoe Mts., Nev. Foothills near Steamboat Springs. 3 sp.

b.) Aug. 19, " E. Humb.t Mts., Nev. Foothills near Fremonts Pass. 3 "

d.) June 3, 1869. Antelope Island, Salt Lake 2 "

e.) " 30, " Wahsatch Mts., Utah. Foothills of Parley's Park. 1 "

c.) May 17, " " " " near Salt Lake City 4 "

f.) July 24, " " " Peak above Parley's Park 8,000 ft. 5 "

275
~~279.~~ A. Geyeri, Gr.— (Proc. Am. Acad. A. & S. VI. 214.)

a.) May 14, 1864. Trinity Mts., Nev.— Southern foothills. 3 sp.

b.) " 21, " Humboldt Valley, Nev.— Sand dunes at Coopers Ferry. 4 "

~~270~~ 255.

~~270~~.– Astragalus § Calycotropis, Gr. (Proc. Am. Acad. A. & S. VI. 526.)

a.) July 30, 1866. E. Humbt. Mts., Nev.– Peak above sawmill 11,000 ft. 6 sp.

b.) Aug. 14, " Same locality. " 3 "

276
~~271~~.– A. Hookerianus, Gr.– (Phaca, Syn. Fl. I. 692.)

Sept. 19, 1867. Star Peak, Nev. in fruit 10,000 ft. 6 sp.

Differs from Douglas' original specimen in Herb. Torrey only in its broader, nearly orbicular leaves (1-3" long) in the shorter & blunter stipules which are sheathing below, & in the shorter calyx teeth & bracts. Legume 1' long.

278
~~272~~.– A. oophorus, S.? Near A. curtipes.

a.) June 29, 1866. Ridge near Summit Spring, Nev. W. of Battle Mt. 4 sp.

b.) July 20?, " Shoshone Range, Nev.– Reese River Pass. 6 "

277
~~273~~.– A. spissus. Near A. Thurberi,

July 29, 1869. Bear River Valley, Utah. Foothills near Evanston. 15 sp.

270
~~274~~.– A. Beckwithii, Syn.

(Bot. Rec. R.R. Rep. II. 120, t. 2.)

June 29, 1866. Ridge near Summit Spring.

July 25, 1866. Ruby Valley, Nev. 15 sp.

279
~~275~~.– A. mollis, Torr. & G. Closely allied to A. spissus, but distinguished by the larger erect (livid), blue flowers, looser & fewer flowered racemes, rachis & calyx longer

a.) May 20, 1866. W. Humboldt Mts.– Foothills early Cooper's ferry 8 sp.

b.) June 15, " " " Coyote creek, mouth of canon 2 "

280
~~276~~.– A. Chamaelycus, Gr. Leaflets (7-10 pairs) Near A. Hookerianus, Nutt. in Herb. Gr.– Doubtless a northern plant.

a.) July 25, 1866. Ruby Valley, Nev. Dry meadow 3 sp.

c.) " 25, 1869. Wahsatch Mts., Utah. Divide at head of Echo canon 7,000 ft. 1 "

d.) " 30, " Bear River Valley, Utah. Foothills near Evanston. 4 "

b.) June 24, " Parley's Park, Utah.– Foothills north. 12 "

281
~~277~~.– Astragalus spirocarpus, Gr. ? (Proc. Am. Acad. A. & S. VI. 225.)

a.) May 27, 1868. Trinity Mts, Nev. Head of Willow cañon. (W. of Nama.) 3 s/.

b.) June 11 & 12, " Dunglen Range, Nev. Foothills below Gourish Peak. 8 "

c.) July 7, " Toiyabeh Range, East foothills, beyond Austin. 2 "

282
~~278~~.– A. filipes, Torr. (Proc. Am. Acad. A. & S. VI. 226.)

a.) June 13, 22, 1868. Dunglen Range, Nev. Near Spalding's Pass. 7 s/.

b.) July 6, " Toiyabeh Range. Ridge above Austin. 3 "

283
~~279~~.– A. oreganus – Nutt. ? ? A. multiflorus ~~var. g~~ ? ~~ssp.~~ in habit ~~&~~ ~~appearance~~ agrees with A. Palmeri, to which it is nearest – flowers ~~very~~ much longer, standard &c. –

a.) May 19, 1868. Trinity Mts, Nev. Foothills above Humb.t Lake 2 s/.

b.) " Lake or locality lost. 3 "

284
~~280~~.– A. multiflorus, Gr. (Homalobus multiflorus, Torr. & Fl. I. 351.)

a.) July 24, 1868. E. Humb.t Mts., Nev. Peak above Camp Ruby 9,000 ft. 2 s/.

b.) " 30, " " " Peak above Sawmill 10,000 ft. 5 "

c.) Aug. 19, " " " " " " 8 "

d.) July 29, 1869. Bear River Valley, Utah. Foothills near Evanston. 6,000 ft. 8 "

286– A. campestris, Gr. ? (Homalobus tenuifolius, Nutt. Torr. & Fl. I. 351.)

a.) July 6, 1869. Uintah Mts, Utah. Poore river cañon, foot-hills. 5,000 ft. 18 s/.

b.) " 31, " " " Bear River cañon, dry meadow. " " 5 "

c.) Aug. 10–12, " " " " " ridge & woods, " " 4 "

287
~~282~~.– A. junceus, Gr. (Homalobus junceus, Nutt., Torr. & Fl. I. 351.)

a.) Aug. 4, 1868. E. Humb.t Mts, Nev. Peak south of Stage Pass. 9,000 ft. 45 s/.

b.) " 19, " " " Ridge above Sawmill " " 1 "

c.) June 25–July 21, 1869. Parley's Park, Utah. Foot-hills. 6,000 ft. 15 "

285
~~283~~.– A. [illegible] var. [illegible]

a.) July 30, 1868. E. Humb.t Mts.– Peak above Sawmill – 10,000 ft. 20 s/.

b.) Sept. 19 " Clover Mts, Nev. – Highest Peak 11,000 ft. 0 "

289
~~284~~.– Astragalus Kentrophyta, Gr. (Kentrophyta montana, Nutt.– 7.09. 71. I. 353.)

a.) July 5, 1866.– Monitor Valley, Nev.– Dry foothills. 4 s/.

b.) Sept. 24, " Holmes Creek Valley, Nev. " " 2 "

290
~~285~~.– A. Kentrophyta, Gr. var. elata~~ss~~. Stem erect, (1-2°) branched at base & with short branchlets (1-2') above. Leaves shorter & longer petioled.

Sept. 23, 1866.– Holmes Creek Valley, Nev. Dry foothill. 6 s/.

291
~~286~~.– Astragalus simplicifolius, Gr.– Grows here but in single individuals

a.) May 15, 1869. Wahsatch Mts.– Summit, near Railroad station. 4 s/.

b.) July 25, " same locality 1 "

292
~~287~~.– Astragalus [illegible] var. ssp. pterocarpus

July 1, 1866.– Humboldt Valley, Nev. at mouth of Reese river 6 s/.

293
~~288~~.– Oxytropis [illegible] Keel tipped with purple mucronate.

Aug. 25, 1866.– E. Humbolt Mts. Nev. Peak above Overland Ranch. 10,11000 ft. 12 s/

294
~~289~~.– Glycyrrhiza lepidota, Nutt. (7.09. 71. I. 294.) Called by the Mormons "Desert weed."

a.) Oct. 15, 1867. Humboldt Valley, at Thackers Station. Nev. 2 s/.

b.) Sept. 9, 1866. Cyress Creek Valley, Utah. 3 "

c.) June 21, 1869. Salt Lake Valley. Meadow near Farmington. 5 "

d.) July 10, " Wahsatch Mts., Utah. Provo Canon, below Heber. 1 "

e.) " 12, " Jordan Valley– Battle creek meadow 1 "

295
~~290~~.– Hedysarum Mackenzii, Rich.– (7.09. 71. I. 357.)

a.) May 15 & 17, 1869. Hillsides near Salt Lake City. 6 s/.

b.) July 10, " Wahsatch Mts, Utah. Provo Canon. 8 "

c.) " 17, " Parley's Park, Utah. 11 "

294.– Vicia Americana, Muhl. (Pg. 71. I. 269.) Foliage very variable, even on the same plant; lower leaflets usually much narrower than the upper; which vary from linear to ovate, & are acute, obtuse, or evenly truncate, always mucronate. The only climbing leguminous plant seen west of Utah, abundant in localities, & known as the "Pea vine". Confined to the banks of creeks & springs.

a.) Oct. 2, 1867. Dunglen range, Nev. Cañon of Granite Peak. In fruit. 6 sp.
b.) July 14, " Trickle Meadows, Nev., near Glendale. (W. W. Bailey.) 3 "
c.) May 9, 1868. Washoe Valley, Nev. – near Washoe City. 2 "
d.) June 12, " Dunglen Range, NW. Cañon East of Granite Peak. 3 "
e.) May 27 & 31, 1869. Cañon & meadow near Salt Lake City, Utah. 5 "
f.) June 21, " Salt Lake Valley, near Farmington 3 "
g.) " 25, " Parley's Park, Utah – Cañon above Camp. 1 "
h.) July 9, " Uintah Mts. Utah. Provo valley – river bank. 1 "
i.) " 31, " " " " Bear River cañon, meadow 1 "

295
292.– Lathyrus polyphyllus, Nutt. (Pg. 71. I. 274.) Frequent on the wooded hillsides of the Wahsatch & Uintahs. Stems ~~wingless~~, Stipules much smaller than the leaflets,

a.) May 17, 1869. Cañon near Salt Lake City. 5,000 ft. 4 sp.
b.) July 14, " Wahsatch Mts. – Above Cottonwood Lake. 10,000 ft. 1 "

~~295~~
293.– L. palustris, L (Pg. 71. I. 275.) Stems subalate-winged; peduncles 4-10 flowered.

a.) May 27, 1869. Wahsatch Mts. – City Creek cañon 2 sp.
b.) June 24 & 25, " " Cañon above Parley's Park. 6 "

~~294.– L.~~ ornatus, Nutt. – (Pg. 71. I. 277.) Puberulent.

May 14, 1869. – City Creek cañon, near Salt Lake City. 6 sp.

Rosaceae.

295.– Prunus Andersonii, Gr. (Proc. Am. Acad. N. S. VII. 337.) Abundant on the foothills of the Washoe or Trinity Mts.– Leaves from lanceolate, tapering to a slender petiole; stone orbicular, compressed, sharply ridged on the margins, abruptly provided with a short beak. Fruit scarcely eatable.

a.) Apr. 23, 1868. Foothills near Carson city. 4 s/.

b.) May 27, " " of Trinity Mts., near Dayton. 2 "

c.) June 9, " " of West Humboldt Mts., near Unionville. 2 "

296.– P. demissa, walp. (Cerasus, Nutt.– Torr. Fl. I. 411.) Frequent in moist mountain cañons; 5-10,000 ft. alt.; 2-10° high, reaching 3-4" in Diam; leaves obovate; fruit resembling that of P. sibirica, Linn.

a.) Sept. 9, 1867.– W. Humboldt Mts., Nev. Unionville Cañon. 6,000 ft. 2 s/.

b.) May 16, 1868. Trinity Mts. Nv. Near Cayote crag. " 1 "

c.) June 8, " W. Humboldt Mts.– Unionville & Cayote Cañons. " 5 "

d.) July 20, " E. Humboldt Mts., Nev. Cañon above Camp Ruby 7,000 ft. 1 "

e.) Sept. 21, " Mts. above Humboldt Lake " 3 "

f.) May 19, 1869.– Wahsatch Mts., Utah. City Creek cañon 6,000 ft. 4 "

g.) June 30th, " Antelope Island, Salt Lake 5,000 ft. 2 "

297.– P. demissa, walp.– var. Tree comparatively tall (12°) slender & graceful; racemes long & pendent; fruit light red, larger, more juicy & thinner skinned than normal.

Sept. 10, 1867. W. Humboldt Mts.– Unionville cañon 5,000 ft. 8 s/.

298.– P. demissa, walp.– var. Very different in habit from the ordinary forms; 15° high by 6" in Diameter; semi-decumbent (alder like) on the bank of a high mountain stream, where the true P. demissa do not exceed 2-3°; leaves small.

June 9, 1868.– W. Humboldt Mts., Nev. Unionville Cañon. 9,000 ft. 5 s/.

299.– P. ~~emarginata, Dougl.~~ A straggling bush, 4° high, on stream banks of high granite cañon in the Washoe Mts., near Carson City, Nev. May 4, 1868. Not yet in leaf but with the habit of a Prunus of this section 2 s/.

Cfr. with S. arvalifolium Arwidss. differs from the latter
[illegible] in Herb. Stockholm from Swedish Lapp.
In general it has the [illegible] form of S. arbuscula, [illegible] in
the habit of S. [illegible] i.e. S. arvalifolia, var. livida, Fr.

304
~~300~~. – Spiraea Bumiosa, Nutt. (S. ariaefolia, Sm. var. discolor, Pog. Pl. I. 416.) Frequent on rocky mountain sides; never exceeding 2-3° in height.

a.) June 6, 1869. W. Humbt. Mts., Nev. Summit above Unionville. 9,000 ft. 1 sp.
b.) July 24 to 29, " E. Humbt. Mts. Nev. – Canons above Camp Ruby 7,000 ft. 6 "
c.) Aug. 15, " " " " Peak above Sawmill 10,000 ft. 1 "
d.) Sept. 8, " Clover Mts. Nev. Ridge above Secret Valley 8,000 ft. 2 "
e.) June 14, 1869. Stansbury Island, Salt Lake. 5,000 ft. 1 "
f.) July 1), " Wahsatch Mts. above Parley's Park. 7,000 ft. 1 "
g.) Aug. 10, 5th " Uintah Mts. Utah. Ridges above Bear River Canon 10,000 ft. 9 "

305. – S. caespitosa, Nutt. – (Pog. Pl. I. 414.) Scapes usually simple.

a.) Sept. 15, 1869. W. Humboldt Mts. Nev. – Limestone cliffs. 9,000 ft. 4 sp.
b.) " " Same locality (W. W. Bailey.) 3 "
c.) Aug. 22, 1869. E. Humbt. Mts., Nev. – Cliffs above Camp Ruby 7,000 ft. 12 "

306. – S. caespitosa, Nutt., var. elata. Much larger; ~~stems~~ scapes 6-10' high, branched, lateral spikes short; radical leaves 1' in length. Flowers variable; petals obovate-linear to spatulate, naked or hairy within; ovaries very hairy or nearly smooth, 5-7, as many as the lobes of the calyx.

Oct. 3, 1869. Eastern Extremity of Raft River Range. 6,000 ft. 8 sp.

302
~~303~~. – Neillia opulifolia, Don. (Spiraea, L. – Pog. Pl. I. 413.) ~~Abundant~~ Frequent in the Wahsatch or Uintah Mts.

May 27, 1869. Wahsatch Mts., City Creek canon. 7 sp.

304. – N. opulifolia, Don. var. pauciflora, More or less tomentose pubescent, especially the calyx & peduncles; ovary usually single, becoming smooth; ovaries 2-4, mostly pendulous; stamens 20, or sometimes 15. Frequent in the E. Humbt. Mts.

a.) July 12-24, 1869. E. Humbt. Mts., Nev. Canons near Camp Ruby. 6-), 000 ft. 7 sp.
b.) " 30, " " " Canon above sawmill 8,000 ft. 1 "
c.) Aug. 15, " " " Ridge " " 9,000 ft. 1 "
d.) June 13, 1869. Stansbury Island, Salt Lake. Peak 6,500 ft. 1 "

30)
30[illegible].– Rubus strigosus, Mx.– (Pl. Wr. I. 449.) Frequent in the Wahsatch Mts.; 2-3° high.; fruit well flavored.

a) Aug. 25, 1869. E. Humb[t] Mts., Nev. Canon above Overland Ranch. 7000 ft. 8 sp.

b) June 30, 1869. Wahsatch Mts., Utah. " above Parley's Park. " 7 "

306.– R. strigosus, Mx. (Pl. Wr. I. 453.) Frequent in Utah, but rare in the mountains west and subalpine.

a) Aug. 31, 1869. E. Humb[t] Mts., Nev. Peaks above Overland Ranch. 10,000 ft. 6 sp.

b) Sept. 7, " Clover Mts., Nev. South Peak 10,000 ft. 1 "

c) July 5, 1869. Uintah Mts., Utah. Provo canon 7,500 ft. 1 "

d) " 10, " Wahsatch Mts., North fork of Provo Canon 6,000 ft. 1 "

e) " 13, " " " Cottonwood canon 5,500 ft. 3 "

307.– R. occidentalis, L. (Pl. Wr. I. 454.) Seen only in the Wahsatch Mts –

July 13, 1869. Cottonwood canon. In fruit 6 sp.

310
308.– Purshia tridentata, DC. Very frequent.

a) May 2, 1869. Foothills near Carson City, Nev. 5,000 ft. 6 sp.

b) June 13, " Dungeon Range, Stachey Pass " 4 "

c) " 30, " Battle Mts., Nev. canon 6,000 ft. 3 "

d) July 10, " Diamond Mts., Nev. Stage Pass " 3 "

e) Oct. 6, " Hills N. of Salt Lake, near Ansley's Station 5000 ft. 6 "

f) May 17, 1869. Foothills near Salt Lake City " " 3 "

g) July 1, " " of Parley's Canon, Utah 6,000 ft. 4 "

311
309.– Cercocarpus parvifolius, Nutt. (Pl. Wr. I. 42.) Not seen west of the Wahsatch. A diffusely branched shrub, 2-4° in height.

a) July 4, 1869. Uintah Mts., Utah. Ridge above Packs Canon 7,000 ft. 9 sp.

b) " 10, " Wahsatch Mts., " Provo canon 6,000 ft. 3 "

310.– C. breviflorus, Gr. (Pl. Wr. II. 54.) Found but in a single canon. A very diffusely, densely & ripidly branched shrub, 1-6° high. Previously found only by Wright in New Mexico.

Aug. 24-29, 1869. Wahsatch Mts., Utah. American Fork canon 5000 ft 11 sp.

312
311.– Cercocarpus ledifolius, Nutt.– (Pl. Fl. I. 427.) ... Frequent on mountain slopes from the Washoe to the Wahsatch Mts., and known as "Mountain Mahogany" from the color, hardness & weight of its wood. In habit of growth it much resembles a neglected half-starved apple tree, seldom exceeding 10° in height & 6' in diameter, but sometimes becoming a handsome tree. The largest seen was 2½° in diameter and 40° high. Pubescence variable

a.	Sept. 15, 1867.	W. Humboldt Mts., Nev.	Above Unionville.	5,000 ft.	2 sp.
b.	Apr. 23, 1868.	Washoe Mts. Nev.	Above Carson City.	7,000 ft.	3 "
c.	June 9, "	W. Humboldt Mts.–	Above Unionville,	5,000 ft.	9 "
d.	July 7, "	Toiyabe Mts., Nev.	East of Austin.	8,000 ft.	7 "
e.	Aug. 4th 9 "	E. Humboldt Mts. "		7,000 ft.	5 "
f.	Oct. 3, "	East & extremity of Raft River Mts.		6,000 ft.	3 "

313
311.– Cowania Mexicana, Don. (C. Stansburiana, Torr.– Stans. Rep. 346, t. 3.) From Pilot Peak to the Wahsatch. A shrub 3-6° high, the trunk covered with an abundant loose shreddy cream-colored bark; the wood hard, compact, light-colored; flowers, bright yellow.

a.	Sept. 17, 1867.	~~Ritch Peak~~ Antelope Butte, Nev.		3 sp.
b.	May 21, 1869.	Foothills near Salt Lake City.		11. "
c.	June 14, "	Stansbury Island, Salt Lake		1 "
d.	July 17, "	Wahsatch Mts., Utah. Mouth of Provo cañon		7 "

315
313.– Dryas octopetala, L.– (Pl. Fl. I. 420.) Rare.

a.	Aug. 3, 1869.	Uintah Mts. Utah.	Peak above Bear River Cañon...	11,000 ft.	15 sp.
b.	" 10, "	"	Peak west " & fruit	" "	4 "

314.– Geum macrophyllum, Willd.– (Pl. Fl. I. 421.)

a.	Aug. 1, 1868.	Ruby Valley, Nev.	Stream bank.	3 sp.
b.	Sept. 26, "	Thousand Spring Valley, Nev.	"	3 "
c.	June 23, 1869.	Parley's Park, Utah	"	1 "

319
317.– G. Rossii, Ser. var. B. Pl. Fl.– (Pl. Fl. I. 424.) Stems 1-5 flowered, 1" high; appressed silky pubescent.

Aug. 27, 1868.	E. Humboldt Mts., Nev.	By Lake above Overland Ranch.	9,000 ft.	6 sp.

317

~~317.~~ Geum triflorum, Pk. (Tor. Fl. I. 423.)

a.) June 25, 1869. Battle Mt., Nev. Near summit. 9,000 ft. 4 sp.

b.) July 9, 1869. Uintah Mts., Utah. Foothills near Kamas Prairie 6,000 ft. 2 "

c.) " 29 " Bear River Valley, " Foothills near Evanston. 6,000 ft. 1 "

d.) Aug 2, " Uintah Mts., Bear River cañon - meadow 9,000 ft. 9 "

318. - Fragaria ~~Kingmanaea~~ vesca L. ~~Ehrh.~~ (Tor. Fl. I. 441.) Not seen between the Washoe & Wahsatch Mts.-

a.) May 8, 1869. Washoe Valley, Nev. Near Washoe Lake. 5,000 ft. 3 sp.

b.) July 5, 1869. Uintah Mts., Utah. Wooded ridge above Provo river, 8,000 ft. 5 "

c.) " 7, " " " " Divide above Duchesne River. " 3 "

d.) Aug. 7, " " " Bear river cañon - wooded ridge 2 "

319. - F. Virginiana, Ehrh. var. glauca. Distinguishable from the last at sight, in the growing plants. Leaves conspicuously glaucous; pedicles shorter than the leaves; fruit ~~ob~~ ovate, pitted, sessile; growing in moist open places, slender- rays & filiform. Wahsatch & Uintah Mts.-

a.) June 22, 1869. Wahsatch Mts. Utah. Parley's cañon. 4 sp.

b.) " 29, " " " " Parley's Park. 8 "

318. - Geum Rossii, Ser. - (Tor. Fl. I. 424.)

a.) Aug. 3, 1869. Uintah Mts. Utah. - Peak above Bear River cañon. 11,000 ft. 9 sp.

b.) " 12, " " " " Ridge " " 10,000 ft. 6 "

322

320. - Potentilla Norvegica, L. (Tor. Fl. I. 434.)

~~Sept 30, 69 Glenn Creek Valley - Utah 6,000 ft 1 sp.~~

July 4, 1869. Uintah Mts., Utah. Pack's cañon 6,000 ft. 1 sp.

323. - P. ~~Norvegica~~, L., var. A slender form, with smaller leaves & flowers, & the pubescence less hirsute. 1-2½° high; leaflets ½-1' long, variable in outline. By far the more usual state, & ~~apparently~~ Dr. Vasey's No. 169, ~~As the style is not uniformly attached near the base of the ovary, this may be a good species.~~

P. Pennsylvanica. - a.) July 16, 1867. Truckee Meadows, Glendale, Nev. (W. W. Bailey.) 4,500 ft. 10 sp.

b.) Sept. 9, " & June 10, 1869. - W. Humboldt Mts., Nev. near Unionville 5,000 ft. 8 "

c.) June 27, 1869. Regan Valley, Nev. " " 3 "

d.) July 1, " Humboldt Valley, mouth of Reese River " " 1 "

e.) Aug. 1, " Ruby Valley, Nev. 6,000 ft. 1 "

~~f.) Sept. 30, " Goose Creek Valley, Utah.~~

g.) June 4, 1869. Antelope Islands, Salt Lake. 5,000 ft. 1 "

h.) July 9, " Wahsatch Mts., Utah. Provo cañon " 2 "

324.– Potentilla millegrana, Eng.– var. (Lehm. Revis. Potent. 201.) Growing in the shade of rocks & perhaps only an obsolated form of P. norvegica.

Aug. 25, 1868. E. Humbt. Mts., Nev. Cañon above Corrt. Ranch. 2 sp.

331 2
~~323.~~– P. ~~arctica~~ Platten[illegible], Lehm. = var. of P. fissa[illegible]
~~arctica~~, L., var. β. glabrata (Trs. Pl. I. 43).) ~~Pubescence variable, some approaching the true P. arctica.~~

2 a.) Aug. 29, 1868. E. Humbt. Mts., Nev. Peaks above Overland Ranch. 10,000 ft. 6 sp.

" b.) Sept. 7, " " Clover Mts., " South Peak. " 1 "

" c.) " 10, " " " North Peak 11,000 ft. 2 "

d.) July 13, 1869. Wahsatch Mts, Utah. Cottonwood Cañon, 3rd Fork. 10,000 ft 2 "

1.2.) ~~2.~~) Aug. 3, " Uintah Mts., " Peak above Bear River Cañon. 11,000 ft. 8 "
12, 8 sp.

325
~~324.~~– P. Pennsylvanica, L.– var. stripoza, Ph. (Trs. Pl. I. 434.) Dr. Hooker refers this specimen to P. arctica, L.

a.) Aug. 22, 1868. E. Humbt. Mts., Nev.– summit S. of Camp Ruby 9,000 ft. 4 sp.

b.) " 27, " " " Ridge above Overland Ranch. " " 2 "

332 pulcherrima
~~325.~~– P. ~~Pennsylvanica~~, L., var. ~~Hispiriana~~, Trs.
July 24, 1868, E. Humbt. Mts, Nev. 6 15 sp.
July 30, 1869. Uintah Mts, Utah. Bear River Valley, mouth of Cañon, 7,500 ft. 25 sp.
31, "

326.– P. Nivea, Lehm. (Trs. Pl. I. 439.)

a.) July 27, 1868. E. Humbt. Mts., Nev. Peak above Ft. Ruby. 9,000 ft. 1 sp.

b.) Aug. 14, " " " " above Sawmill " 1 "

c.) " 31, " " " " above Overland Ranch. 10,000 ft. 7 "

~~327.~~– P. Nivea, Lehm. – var. with the leaflets cleft to the base, segments linear.

a.) July 24, 1868. E. Humbt. Mts., Nev. Divide above Camp Ruby 9000 ft. 10 sp.

b.) " 27, " " " Peak above Ft. Ruby. " 7 "

~~328.~~– P. Nivea, Lehm. A larger leaved, nearly glabrous form. (Dr. Vasey's P. nivea, No. 171.)

a.) Aug. 27, 1868. E. Humbt. Mts. Nev. Lake shore above Overland Ranch. 9,000 ft. 5 sp.

b.) " 3, 1869. Uintah Mts., Utah. Peak above Bear River Cañon 10-12,000 ft. 6 "

329.– P. gracilis, Dougl. (Trs. Pl. I. 440.) Silky canescent throughout, (upper surface of the leaves somewhat greener;) branches & the corymb & stem; heads rather crowded.

b.) July 3, 1868. Shoshone Mts., Nev. Silver Creek Cañon. 5,500 ft. 2 sp.

a.) June 13, " Douglas Range, Nev. Donnelly's Pass. 6,000 ft. 5 "

c.) July 9, " Diamond Spring Valley, Nev. " 7 "

d.) " 11, " Ruby Valley, Nev. 6,000 ft. 1 "

e.) June 30, 1869. Parley's Park, Utah. " 4 "

There are certainly very striking affinities between the [illegible] forms of P. [illegible] & P. [illegible] — both species varying similarly in the shape & venation of the leaflets, in the [illegible] of pubescence & [illegible] [illegible] a [illegible] than by [illegible] the [illegible] [illegible] of the one [illegible] from the [illegible] [illegible] [illegible] the transformation is complete. There is an constantly [illegible] [illegible] [illegible] in the character of the [illegible] [illegible] in P. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] ~~[illegible]~~ & is probably [illegible] [illegible] [illegible] 217, [illegible] [illegible] & P. [illegible] with [illegible] [illegible] [illegible] the [illegible]

[illegible]

[illegible]

[illegible]

333
330.- Potentilla ~~gracilis, Dougl.- var.~~ Leaflets canescently tomentose beneath, dull green & somewhat hirsutely pubescent above, with a uniform serration not reaching half way to the midrib, rounded at the apex; corymb loose & spreading, with slender peduncles; calyx somewhat hirsute, not tomentose; flowers orange.

a.) July 24, 1868. E. Humbt. Mts., Nev. Cañon above Camp Ruby - 6,500 ft. 2 sp.

b.) June 29, 1869. Wahsatch Mts, Utah. Ridge near Parley's Park " 6 "

~~c.) July 31, " Uintah Mts., " Bear River cañon, 6,000 ft. 3 "~~

331
331.- P. gracilis, Dougl.- var. ~~forma~~ flabelliformis, Torr. (Tor. & Fr. I. 440.) ~~Leaflets numerous on the basal lobes nearly & deeply cleft; flowers in crowded corymbs; calyx tomentose.~~

a.) June 26, 1868. Mt. Tobin Range, Nev. Cumberland cañon. 6000 ft 5 sp.

b.) Sept. 5, " Secret Valley, Nev. " 2 "

332
332.- P. ~~Nuttallii~~, Lehm. P. nivea, Nutt.- (Tor. & Fr. I. 440.) Another form of P. gracilis, Dougl.

a.) July 16, 1867. Truckee Meadows, Nev. near Glendale. (W. W. Bailey.) 1 sp.

b.) Aug. 26, 1868. E. Humbt. Mts., Nev. Peak above Overland Ranch. 9,000 ft. 2 "

c.) Sept. 5, " Secret Valley, Nev. - (with 331, b.) 6,000 ft. 1 "

334 ~~335~~
333.- P. nivea, L. (Tor. & Fr. I. 441.)

Aug. 3, 1869. Uintah Mts., Utah. Peak above Bear River Cañon. 11,000 ft. 7 sp.

324 a form of P. diversifolia, var. glaucophylla
334.- P. ~~bifloria~~, Lehm.- (Tor. & Fr. I. 442.)

Aug. 3, 1869. same locality as the last. 3 sp.

339
335.- P. Anserina, L. (Tor. & Fr. I. 444.) Approaching var. P. grandis, Tor.

a.) July 9, 1868. Diamond valley, Nev. Sulphur Spring. 6,000 ft. 2 sp.

b.) " " 11, " Ruby Valley, Nev. " 4 "

c.) May 31, 1869. Jordan Valley, Utah. near Salt Lake City 5,000 ft. 6 "

d.) July 17, " Parley's Park, " 6,000 ft. 6 "

336.- P. ~~fruticosa~~, L. (Tor. & Fr. I. 445.)

a.) Aug. 3, 1868. Ruby Valley, Nev. Stream bank. 6,000 ft. 10 sp.

b.) " 6, " Huntington Valley, Nev. " " " 3 "

c.) " 27+28, " E. Humbt. Mts. Nev. Cañon Creeks above Overland Ranch. 9,000 ft. 1 "

d.) July 5, 1869. Uintah Mts., Utah. Provo cañon 7,000 ft. 1 "

341.
~~335~~.– Potentilla fruticosa, L. var. Alpina forma; leaves very short, linear.

Aug. 14, 1868. E. Humboldt Mts., Nev. Peak above sawmill. 11,000 ft. 12 sp.

342
~~336~~.– P. glandulosa, L. (Torr. Fl. I. 446.)

a.) June 26, 1868. Mt. Robin Range, Nev. Cumberland cañon 5,500 ft. 1 sp.

b.) " 30, " Battle Mt. West cañon. stream bank " 1 "

c.) July 24, " E. Humbt. Mts., Nev. Cañon above Camp Ruby 6,500 ft. 8 "

d.) Sept. 22, " Range at head of Humbt. R., Nev. Coyote Creek cañon " 1 "

e.) May 19th 1869. Wahsatch Mts., City creek cañon. 5,000 ft. 5 "

f.) June 29, " " Cañon above Parley's Park. 6,000 ft. 1 "

343
~~339~~.– P. procumbens, "Clairv. ~~Manuel~~" Ait. (Hid. Kew.) (Sibbaldia, L. – Torr. Fl. I. 433.)

a.) Aug. 29, 1868. E. Humbt. Mts., Nev. Cañon above Overland Ranch. 10,000 ft. 12 sp.

b.) " 4, 1869. Uintah Mts., Utah. Peak west of Bear River Cañon 11,000 ft. 9 "

344
~~340~~.– Iresia Gordoni? nov. sp. "Rizoma subcæspitoso, leaves numerous, radical, linear, elongate, short petioled, pinnate; pinnæ numerous alternate small deeply 3-5 parted, lobes connate, obtuse, entire or bifid, ~~[illegible]~~ Stem ~~[illegible]~~ leaved, ~~[illegible]~~ ; ~~[illegible]~~ of the hirsute calyx ovate-lanceolate twice longer than the ~~[illegible]~~ petals, bracteoles linear-spatulate, ~~[illegible]~~ , ~~[illegible]~~ column, ~~[illegible]~~ & leaves at base copiously resinous, ~~[illegible]~~ Platte River, Gordon." Pk. Journ. of Bot. & Kew Miscr. V (1853) 341, t. 12.

a.) July 6th, 1869. Uintah Mts., Utah. Divide above Duchesne River. 9,000 ft. 19 sp.

b.) " 14, " Wahsatch Mts., " above Cottonwood Lake. " " 2 "

c.) Aug. 4, " Uintah Mts., Head of Bear River cañon " " 1 "

d.) " 12, " " " Ridge above Bear River Cañon 10,000 ft. 1 "

~~346~~ P. Baileyi, ~~I. setigera~~, nov. sp. Habitat of P. gracilis.

Aug. 24, 1868. E. Humbt. Mts. Nev. Granite Rocks, near Fremonts Pass 6,500 ft. 17 sp.

345
~~340~~ P. Baileyi, nov. sp. ~~[illegible]~~

Sept. 4, 1867. W. Humbt. Mts., Nev. Granite rocks, Wright's cañon. 5,000 ft. 8 sp.

347
~~343~~. Iresine [illegible] var. S. Nevadensis, Nov. var. glabrior

a.) July 8, 1868. Monitor Valley, Nev. Alkali flat, at Grubbs Wells. 6,000 ft. 14 sp.
b.) " 9, " Diamond Valley, Nev. Alkali meadow " " 1 "
c.) " 11, " Ruby Valley, Nev. meadow " 3 "

344
~~344~~. Rosa blanda, Ait. (DC. Prod. II. 599.) Mostly confined to streambanks & growing from 3 to 10 feet high, usually 5-foliate usually more or less acute, Flowers 1½" & fruit 4" in diameter, the latter globose or oval.

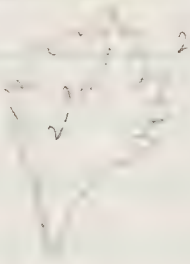
a.) July 26, 1867. Truckee Meadows, Nev. Glendale. (W. G. Bailey.) 4,500 ft. 35 sp.
b.) June 11 & 17, 1868. W. Humboldt Mts., Nev. Streambanks near Unionville 5,000 ft. 4 "
c.) " 29, " Range W. of Battle Mt. Summit Spring. " 5 "
d.) July 10, " Diamond Spring, in Diamond Valley, Nev. 6,000 ft. 1 "
e.) " 24, " E. Humboldt Mts. Nev. Cañon above Ruby Camp 7,000 ft. 2 "
f.) " 25 & Aug. 1. " " " " Ruby Valley 6,000 ft. 5 "
g.) Aug. 27, " " " " Ridge above Overland Ranch. 8,000 ft. 2 "
h.) Sept. 9, " Humboldt Valley - ~~above~~ Ft. Halleck. 5,500 ft. 6 "
i.) " 21, " Range above Humboldt Pass - Coyote cañon 6,000 ft. 1 "
j.) May 21, 1869. Wahsatch Mts., Utah. City Creek Cañon 5,000 ft. 2 "

345
~~345~~. R. blanda, Ait. var. ? with larger flowers & fruit, & the more usual form met with in Utah, & grow: on dry ridges away from water; 2-3° high, flowers 3' and fruit 6-8" in diam.; more pubescent & glandular.

a.) June 24 & 29, 1869. Wahsatch Mts., Utah. above Parley's Park. 6-7,000 ft. 9 sp.
b.) Aug. 17, " " " " " " & fruit 6,500 ft. 3 "

350
~~346~~. Pyrus sambucifolia, Ch. & Sch. (DC. Prod. II. 631.) Acuminations of the leaves very variable.

Sept. 3, 1868. E. Humboldt Mts. Nev. Cañon above Hunnemans. 7,000 ft. 45 sp.
June 28, 1869. Wahsatch Mts. Utah. Ridge above Parley's Park 7-8,000 ft. 6 "
July 5, " Uintah Mts, " Ridge above Provo Cañon 8,000 ft. 1 "



351.
~~344.~~ – Crataegus ? glandulosa, Willd. – (C. sanguinea, Pall., Trg. 71. I. 464.) Leaves more or less broadly ovate, acute, ~~narrowing~~ at base into a slender petiole, occasionally sub lobed. Fruit large, dull purple with whitish dots, eatable.

Sept. 15, 1868. Humb.t Valley, Nev. above Fl. Hallick. Stream bank. 5,500 ft. 10 sh.

May 14, 1869. Wahsatch Mts., Utah. City Creek Canon 5,000 ft. 6 "

352.
~~345.~~ – Amelanchier Canadensis, Trg., var. alnifolia. (Trg. 72. I. 473.) Abundant on all the higher ranges, and giving their name to the "Toiyabeh" Mts. – 2-8° high.

a.) June 5, 1868. W. Humb.t Mts., Nev. Unionville canon. 5,000 ft. 8 sh.

b.) " 25, " Mt. Robinson Range. Nev. Peak above Cumberland. 8,000 ft. 6 "

c.) July 20 to 24, " E. Humb.t Mts. – Canons above Camp Ruby " 4 "

d.) Aug. 1, " Ruby Valley, Nev. 6,000 ft. 2 "

e.) " 15, " E. Humb.t Mts. – Peak above Sawmill 10,000 ft. 3 "

f.) May 17, 1869. Wahsatch Mts, Utah. City Creek canon. 5,000 ft. 1 "

Saxifragaceae.

360.
~~349.~~ – Saxifraga flagellaris, Willd. – (Trg. 71. I. 564.)

Aug. 3, 1869. – Uintah Mts., Utah. Peak above Bear R. canon. 11,000 ft. 8 sh.

361.
~~350.~~ – S. caespitosa, L. (Trg. 71. I. 565.) Stems 1-flowered; basal leaves often entire, linear-oblong; petals scarcely longer than the calyx.

Aug. 3. 1869. – Same locality as the last. 11,000 ft. 9 sh.

~~351.~~ – S. punctata, L. (S. aestivalis, Fisch. – Trg. 71. I. 567.)

a.) Aug. 27, 1868. E. Humb.t Mts., Nev. Lake shore above Overland Ranch. 9,000 ft. 6 sh.

b.) July 5, 1869. Uintah Mts, Utah. Provo canon 8,000 ft. 4 "

362.
~~352.~~ – S. nivalis, L. – (Trg. 71. I. 571.)

a.) Sept. 12, 1868. Clover Mts., Nev. Below North Peak. 9,000 ft. 4 sh.

b.) Aug. 3, 1869. Uintah Mts, Utah. Peak above Bear R. canon 11,000 ft.) "

c.) " 4, " " " Head of same canon 9,000 ft. 2 "

d.) " 12, " " " Ridge above same canon 10,000 ft 2 "

~~353.~~ – S. nivalis, L. – A lower flowered form with nearly four calyx, equivalent to S. Virginiensis.

Aug. 29, 1868. E. Humb.t Mts. Nev. Lake shore above Overland Ranch. 9,000 ft. 7 sh.

353
~~354~~. – Saxifraga controversa, Sternb. (DC. Prod. IV. 34.)

a.) Sept. 12, 1869. Clover Mts., Nev. Below North Peak. 10,000 ft. 5 sp.

b.) Aug. 3, 1869. Uintah Mts., Utah. Peaks above Bear R. cañon 11,000 ft. 19 "

355
~~356~~. – S. integrifolia, Hook. (Fl. Bor. I. 572.) Roots "granular" fibrous.

June 29, 1869. Wahsatch Mts, Utah. Parley's Park 6,000 ft. 10 sp.

354
~~356~~. – S. virularis, L. (Fl. Bor. I. 574.) In the clefts or shade of wet rocks; apparently also the S. debilis of Engelmann; glabrous or puberulent.

Aug. 2-4, 1869. Uintah Mts, Utah. Head of Bear R. cañon & peaks above. 9-11,000 ft. 9 sp.

361
~~360~~. – Tellima parviflora, Hook. (Lithosprugma, Nutt. – Fl. Bor. I. 544.)

a.) June 9, 1868. – W. Humb.t Mts., Nev. Unionville cañon. 7,000 ft. 9 sp.

c.) July 20, " E. Humb.t Mts., Nev. Cañon above Camp Ruby 7,000 ft. 1 "

b.) " 6, " Toiyabeh Mts, Nev. Divide above Austin, " " 3 "

d.) Aug. 29, " E. Humb.t Mts., " Peaks above Overland Ranch. 10,000 ft. 1 "

f.) June 23, 25, 1869. Parley's Park, Utah 6,000 ft. 4 "

e.) May 17 & 19, " Wahsatch Mts, Utah. City Creek cañon 5 "

362
~~364~~. – T. tenella, Nutt. probably – not answering perfectly to the original description, according sufficiently well with a very poor original specimen in Herb. Gr. – Amend description. 413 ft. 46 and 62 Am.

a.) Apr. 15 – May 9, 1868. – Washoe Mts, Nev. Cañons near Carson City 5,000 ft. 25 sp.

b.) June 9, " W. Humb.t Mts., Nev. Unionville cañon – pink & white. 7,000 ft. 13 "

c.) " 24 & 25, 1869. Parley's Park, Utah, & cañons 6,000 ft. 8 "

d.) July 15, " Wahsatch Mts, – E. of Divide above Cottonwood Lake 9,000 ft. 7 "

e.) Aug. 5, " Uintah Mts, Utah. Head of Bear R. cañon. " " 3 "

363
~~359~~. – Mitella pentandra, Hook. – (Fl. Bor. I. 546.)

a.) Aug. 27, 1868. E. Humb.t Mts. – Lake shore, above Overland Ranch. 9,000 ft. 8 sp.

b.) May 15, 1869. – Wahsatch Mts, Utah. City creek cañon 5,000 ft. 14 "

364
~~360~~. – M. trifida, Graham. (Fl. Bor. I. 547.). Petals filiformly divided, often much exceeding the calyx, white; capsule opening before maturity.

a.) May 24, 1869. Wahsatch Mts, Utah. City creek cañon. 5,000 ft. 115 sp.

b.) June 24 & 30, " " " Cañons above Parley's Park. 6,500 ft. 2 "

c.) July 15, " " " Cottonwood Cañon 9,000 ft. 2 "

It differs from H. angustina, [illegible] in its expanded genitalia, & normally

13

Lond (6-10'), widely distributed throughout. Typical specs of H. optimum also from the same localities / between, without further locality

365

~~361.~~ – Heuchera rubescens, Torr. – (Stans. Rep. 384, U.S.) Varying in the color of the sepals of the flowers.

a.) June 4, 1868. W. Humbt. Mts, Nev. – Unionville cañon 7,000 ft. 6 sp.
b.) July 20, " E. Humbt. Mts., Nev. – Cañon above Camp Ruby, " " 2 "
c.) May 19, 1869. Wahsatch Mts., Utah. City Creek cañon. 5,000 ft. 3 "
d.) July 14, " " " – Cottonwood cañon 9,000 ft. 1 "

366.

~~362.~~ – H. cylindrica, Doug. – ~~var. alpina~~ new or new sp.? (Tor. Fl. I. 540.)

Sept. 7, 1868. – Clover Mts, Nev. South Peak. 11,000 ft. 8 sp.

~~363.~~ – H. parviflora, Nutt. (Tor. Fl. I. 541.)

a.) July 20-24, 1868. E. Humbt. Mts., Nev. Cañons above Camp Ruby 7-9,000 ft. 7 sp.
b.) " 25, " " " " Peak above Camp Ruby 9,000 ft. 3 "
c.) May 29, 1869. Wahsatch Mts, Utah. City Creek cañon 5,000 ft. 5 "
d.) June 30, " " " Ridge above Parley's Park. 7,000 ft. 1 "

367.

~~364.~~ – Parnassia parviflora, DC. (Tor. Fl. I. 149.)

a.) Aug. 7, 1868. – Huntington Valley, Nev. Wet meadow. 6,000 ft. 11 sp.
b.) " 10, " Ruby Valley, Nev. " " 4 "
c.) July 27, 1869. Echo cañon, Utah. – Near Hanging Rock. " 5 "

369

~~365.~~ – P. fimbriata, Banks. – (Tor. Fl. I. 150.)

a.) Aug. 27 & 28, 1868. E. Humbt. Mts. – Nev. Cañon above Overland Ranch. 9,000 ft. 6 sp.
b.) Sept. 2, " " " " above Hammond's 7,000 ft. 4 "
c.) " 10, " Clover Mts, Nev. below South Peak 10,000 ft. 1 "
d.) July 13, 1869. Wahsatch Mts., Utah. Cottonwood cañon, Fm fork. 6,000 ft. 9 "
e.) " 30, " Uintah Mts, " Mouth of Bear R. cañon. 7,000 ft. 7 "
f.) Aug. 7, " " " Bear River cañon – meadow 6,000 ft. 5 "

370

~~366.~~ – Jamesia Americana, Torr. – (Tor. Fl. I. 593. Pl. Fremont. 55.) In a deep rocky gorge – a straggling shrub, 2-3° high; mostly in fruit.

Aug. 25, 1869. Wahsatch Mts, Utah. American Fork Cañon. 7,000 ft. 14 sp.

~~367.~~ – Ribes Cynosbati, Mx.? (Tor. Fl. I. 545.) Without flowers or fruit.

June 11, 1869. Black Rock, S. end of Salt Lake 2 sp.

371
~~364~~.— Ribes hirtellum, Mx. (Trg. 71. I. 546.) 2-3° high.

a.) Sept. 2, 1866. E. Humbt. Mts., Nr. Canon above Overland Ranch. 7,000 ft. 2 sp.

b.) June 24, 1869. Wahsatch Mts. Utah. Canon above Parley's Park. " " 2 "

372
~~369~~.— R. divaricatum, Dougl. (Trg. 71. I. 547.) Stream banks; 6° high.

S

a.) Sept. 19, 1867. W. Humbt. Mts., Unionville canon 5,000 ft. 8 sp.

b.) Oct. " same locality. (W. W. Bailey.) " 3 "

c.) June 9, 1866. " " " 5 "

373.
~~370~~.— R. leptanthum, Gr. — (Pl. Fendl. 53.) Flowers usually with a rather short, campanulate calyx. 2° high Base hillsides.

b.) May 16 or 17, 1866. Trinity Mts., Nev. above Humboldt Lake 6,000 ft. 4 sp.

a.) Apr. 18 or 23, " Washoe Mts. Nev. King's canon, near Carson " 6 "

c.) May 27, " Trinity Mts., Nr. Canon W. of Orcana 5,000 ft. 2 "

—18, 1869. Black Rock, S. end of Salt Lake, Sour & bitter. 2 "

374.— R. lacustre, Poir. (Trg. 71. I. 544.) Fruit nearly smooth; racemes erect flowered; leaves 1-2" in diameter. In wood.

Aug. 10, 1869. Uintah Mts., Utah. Bear River Canon 8,000 ft. 3 sp.

375
~~372~~.— R. lacustre, Poir., var. setosum, Gr. (R. oxyacanthoids, L. var. B. Trg.-71. I. 546.)
Leaves small; fruit hispid; racemes few flowered. 1-2° high.

a.) July 27, 1866. E. Humbt. Mts.— Nr. Peak above Ft. Ruby 9,000 ft. 1 sp.

b.) Aug. 18, " " " Peak above Sawmill. " 1 "

c.) July 6, 1869. Uintah Mts, Utah. Divide above Duchesne R. 10,000 ft. 5 "

d.) Aug. 4, " " " Head of Bear R. canon. " " 1 "

376.— R. bracteosum, Dougl.— (Trg. 71. I. 550.) A loose straggling bush on shaded streambanks in mountain canons. Fruit unpleasant.

a.) Aug. 19, 1866. E. Humbt. Mts, Nev. Canon near Fremont's Pass. 9,000 ft. 5 sp.

b.) May 19 & 27, 1869. Wahsatch Mts, Utah. City Creek canon 6,000 ft. 8 "

377.— R. frostratum, L'Her. (Trg. 71. I. 549.) Flowers white; closely resembling the last.

July 14, 1869.— Wahsatch Mts, Utah. Cottonwood canon. 9,000 ft. 7 sp.

Bracts conspicuous, nearly equal the pedicels.

XXXI. Well distinguished by its broad corniculate stipules, ~~ovate~~ calyx, short-stamens, bifid style, & [illegible] nodes. Collected by [illegible]

R. Rivinianum Ph. [illegible] includes: P. glutinosum, [illegible]

to P. [illegible] the style [illegible]

378

375.– Ribes cereum, Dougl.– (Trs. Ft. I. 551.) 1-4°. Varying considerably (according to altitude) in the amount of waxy secretion, both upon the fruit & leaves. "The resinous dots would seem to be the first stalked glands, but are variously modified by age", D.C.E. Fruit sweet. R. Bakeri fera, Kell., though said to have yellow flowers, is otherwise nearly the same.

a.]	Sept. 15, 1867.	West Humbt. Mts., Nev.–	Star Peak	10,000 ft. 15 sp.
b.]	June 19, 1868.–	" "	Head of Echo canon	9,000 ft. 2 "
c.]	June 27, 1868.	Mt. Tobin Range, Nev.	Cumberland canon	6,000 ft. 2 "
d.]	July 20, "	E. Humbt. Mts., Nev.	Canon above Camp Ruby	7,500 ft. 4 "
e.]	Aug. 19, "	" "	Peak above Sawmill	10,000 ft. 4 "
f.]	" 19, "	" "	Foot hills near Fremont's Pass	7,000 ft. 3 "
g.]	Sept. 10, "	Clover Mts., Nev.	Mt. Peak.	11,000 ft. 1 "
h.]	May 19, 1869.	Wahsatch Mts., Utah.	City Creek canon	5,000 ft. 3 "
i.]	July 4, "	Uintah Mts., "	Ridge above Park's canon	7,000 ft. 2 "
j.]	" 20, "	Wahsatch Mts., "	Peak west of Parley's Park	" " 3 "
k.]	Aug. 10, "	Uintah Mts., "	Peak above Bear R. canon	9,000 ft. 1 "
l.]	" 19, "	Wahsatch Mts., "	Cottonwood canon, fem. fork.	8,000 ft. 2 "

379

376.– R. viscosissimum, Ph.– (Trs. Ft. I. 551.) A low, spreading bush, 3° high.

a.]	June 25, 1869.	Wahsatch Mts., Utah.	Ridge above Parley's Park.	8,000 ft. 45 sp.
b.]	July 5, "	Uintah Mts., "	Provo canon	9,000 ft. 3 "
c.]	Aug. 11 & 12, "	" "	Bear River canon	8,000 ft. 3 "

381

377.– R. aureum, Ph.– (Trs. Ft. I. 552.) On low stream banks. Called by the Pah-Ute Indians, "Pánp-si".

a.]	May 11, 1868.–	Bank of the Truckee, near Glendale, Nev.	4,500 ft.	35 sp.
b.]	" 21, "	Trinity Mts, Nev. Canon W. of Dreamer	5,000 ft.	3 "
c.]	July 24, "	Ruby Valley, Nev.	6,000 ft.	2 "
d.]	June 23, 1869.	Parley's Park, Utah	" "	2 "

380

378.– R.

Apr. 22 & May 2, 1868. Wahsatch Mts., Nev. Clear Creek canon. 5,000 ft. 4 sp.

Lobelia angustifolia, Sw.
Sec Elatina

Crassulaceae.

382
379.– Sedum Rhodiola, DC.– (Trg. Fl. I. 557.) Sepals, petals & filaments of a deep maroon color; Flowers occasionally perfect, with 10 stamens & 5 pistils.–

a.) Aug. 27-29, 1869. E. Humb.t Mts.,– Nev. above Overland Ranch. 9-10,000 ft. 14 sp.

b.) Sept. 3, " " " Peak above Hunnemann's.– 10,000 ft. 2 "

383.– S. rhodanthum, Gr. (Silli. Journ. XXXIII. 405.) Stem 6-14' high; leaves entire, oblong lanceolate, acutish; flowers pale rose color;

Aug. 3 & 4, 1869. Uintah Mts., Utah. Bear River Canon; Streambanks. 9,000 ft. 13 sp.

384.– S. stenopetalum, Pk.– (Trg. Fl. I. 560.)

a.) July 7, 1868. Toiyabeh Mts, Nev. Granite foothills, E. of Austin. 6,000 ft. 35 sp.

b.) Aug. 4, " E. Humb.t Mts., " Ridge south of Stage Pass. 8,000 ft. 4 "

c.) Sept. 9, " " " Foothills of Secret Valley 6,000 ft. 7 "

d.) June 26, 1869. Wahsatch Mts.– " of Parley's Park. " " 8 "

385.– S. Torreyi, E. Don. (Trans. Linn. Soc. II. 205.) Leaves broadly ovate or rhomboid (1-2" long) fleshy; flowers yellow, in a loose few-flowered corymb; petals oblong-lanceolate, twice longer than the ovate sepals, 1-nerved; stamen 10, nearly equalling the petals & attached to them near the base, one to the midrib of each & one near the margin. 2-4', rarely 6', high.

a.) Sept. 15, 1867. W. Humb.t Mts.– Nev. Star Peak. Clefts of limestone rocks. 9,000 ft. 85 sp.

b.) July 20, 1868. E. Humb.t Mts., Nev.– Canon above Camp Ruby 7,500 ft. 3 "

c.) Sept. 9, " " " Foothills of Secret Valley 6,000 ft. 4 "

d.) May 27, 1869. Wahsatch Mts, Utah. City Creek canon 5,000 ft. 1 "

e.) July 4, " Uintah Mts, " Limestone Ridge above Packs canon 7,000 ft. 2 "

f.) " 10, " Wahsatch Mts, " Provo Canon, north fork " " 5 "

g.) Aug. 12, " Uintah Mts, " Ridge above Bear R. canon 10,000 ft. 3 "

346.a - Callitriche autumnalis, L. - Gr. Man. 4. 29. 1

July 20, 1869. - Parker's Point, Utah 6,000 f/s. 15 s/s.

Haloragaceae.

386.– Hippuris vulgaris, L.– (Trs. Fl. I. 530.)

a.) Oct. 17, 1867. Humboldt Valley, Nev. Below Winnemucca 5,000 ft. 2 sh.

b.) July 20, 1869. Parley's Park, Utah. 6,000 ft. 2 "

387.– Myriophyllum verticillatum, L.– (Trs. Fl. I. 529.)

a.) Aug. 1, 1867.– Ruby Lake, Nev. 6,000 ft. 11 sh.

b.) " 13, 1869. Uintah Mts., Utah. Bear River cañon, slough. 8,000 ft. 14 "

388.– Callitriche verna, L. (Gr. Man. 428.)

a.) Sept. 1, 1867.– Ruby Valley, Nev. 6,000 ft. 05 sh.

b.) Aug. 11, 1869. Uintah Mts., Utah.– Bear River cañon – slough. 8,000 ft. 12 "

388.– C. verna, L. – var. terrestris

a.) July 3, 1869. Uintah Mts., Utah. Silver Creek cañon 6,000 ft. 7 sh.

b.) " 20, " Wahsatch Mts., " Parley's Park. " " 5 "

Lythraceae.

389.– Ammannia latifolia, L. (Trs. Fl. I. 490.)

Aug. 3, 1867.– Carson Valley, Nev. – River Bottom, Red Station. 15 sh.

Onagraceae.

388.– Epilobium alpinum, L. – (Trs. Fl. I. 489.)

a.) Aug. 27 & 29, 1867.– E. Humbt. Mts. Nev. Peaks above Overland Ranch. 9-10,000 ft. 8 sh.

b.) July 8, 1869. Uintah Mts, Utah – Head of Parks Cañon. 8,000 ft. 2 "

c.) " 14, " Wahsatch Mts. – " Cottonwood cañon 9,000 ft. 8 "

d.) Aug. 4, " Uintah Mts., Utah – Head of Bear R. cañon " " 8 "

389.– E. coloratum, Muhl. (Trs. Fl. I. 489.) Embracing forms of E. strictum, L.

a.) July 17, 1867.– Truckee Meadows, at Glendale, Nev. (W. H. Bailey.) 9 sh.

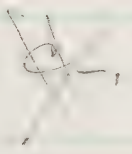
b.) " 24, " Truckee Bottoms, at the Big Bend. 10 "

c.) Aug. 5, " Shore of Soda Lake, Carson Desert, Nev. 3 "

d.) Sept. 10, " W. Humbt. Mts., Nev. – Unionville cañon 5,000 ft. 3 "

e.) June 30, 1868. Battle Mts. Nev.– west Cañon 6,000 ft. 3 "

f.) July 10, " Diamond Valley, Nev.– Near Diamond Spring. " " 4 "



g.) July 25, 1866. Ruby Valley, Nev. 6,000 ft. 2 sp.

h.) Aug. 26 to Sept. 2, " — E. Humb^t. Mts., Nev. Cañon above Overland Ranch. 7-8,000 ft. 7 "

i.) June 24, 1869. — Wahsatch Mts., Utah. Parley's Park. 6,000 ft. 1 "

j.) July 13, " " " Cottonwood cañon, 7 miles from fork. 7,000 ft. 4 "

k.) " 15, " " " E. side of divide, above Cottonwood cañon. 8,000 ft. 2 "

394.
~~390.~~ — *Epilobium paniculatum*, Nutt. — (Torr. Fl. I. 490.)

a.) Sept. 8, 1867. — W. Humb^t. Mts., Nev. Univerille cañon. (W. W. Bailey.) 6,000 ft. 6 sp.

b.) " 9, " " " Same ~~cañon~~ locality 5,000 ft. 1 "

c.) Aug. 16, " Trickle Mts., Nev. Above Pyramid Lake. 7,000 ft. 3 "

~~St. Louis, June 27, 1866. Near Tobin, Range, from Cumberland cañon — 6,000 ft. 9 "~~

d.) July 2, " Reese River Valley, Nev. Near mouth. 5,500 ft. 3 "

~~St. Louis, " 14, " Hamboldt Valley, Nev. — 6,000 ft. —~~

e.) " 20, " E. Humb^t. Mts., Nev. Cañon above Camp Ruby 7,000 ft. 1 "

f.) " 30, " Ruby Valley, Nev. 6,000 ft. 1 "

g.) May 14, 1869. — Foothills near Salt Lake City. — 5,000 ft. 4 "

h.) May 31, 1869. Jordan Valley, Utah. Near Salt Lake City. 5,000 ft. 1 "

~~St. Louis, " 7, " Cañon above Cañon. Salt Lake — —~~

i.) " 10, " Black Rock — S. end of Salt Lake " 4 "

~~Specimens too young~~

394. — *E. angustifolium*, L. — (Torr. Fl. I. 490.) Banks of mountain streams. —

a.) Sept. 4, 1867. — W. Humb^t. Mts., Wright's Cañon. (W. W. Bailey.) 6,000 ft. 15 sp.

b.) " 10, " " " " Univerille Cañon. 8,000 ft. 3 "

c.) Aug. 1, 1866. — Ruby Valley, Nev. 6,000 ft. 4 "

d.) July 10, 1869. — Wahsatch Mts., Nev. Provo Cañon. " " 1 "

392. — *E. obcordatum*, Gr. — (Proc. Am. Acad. A. & S. VII. 532.)

a.) Aug. 31, 1866. E. Humb^t. Mts., Nev. Peaks above Overland Ranch 10,000 ft. 13 sp.

b.) Sept.), " Clover Mts., " South Peak. " " 2 "

~~393.~~ — *Zauschneria Californica*, Presl. (Fl. Cal. I. 186) var.? — with ovate, denticulate leaves, (1-1½ in long & ½ in.) villous canescent, the petals much deeper colored than the calyx. ~~The plant described by Parry & Hooker as intended within the calyx tube, and found on these specimens — not in others from near San Francisco.~~

July 13, 1869. Wahsatch Mts., Utah. Cottonwood cañon 5,000 ft. 9 sp.

" 17, " " " " East Creek cañon, 4 below Parley's Fork. 6,000 ft. 10 "

Aug. 19, " " " Cottonwood cañon 6,000 ft. 10 "

398

~~394~~. – Clarkia rhomboidea, Dougl. – (Trel. Pl. I. 516) 1-3° high; sparingly branched; fragile; hillsides. Rarely met with in Nevada.

a.) June 27, 1868. – Mt. Tobin Range, Nev. Cumberland Canon. 6,000 ft. 6 sh.
b.) " 22, 1869. Wahsatch Mts., Utah. – Parley's Canon 5,000 ft. 4 "
c.) July 10, " " " Provo Canon. 6,000 ft. 6 "
d.) " 13, " " " Cottonwood Canon " 2 "

~~395~~. – Epilobium paniculatum, Nutt. var. – Almost wholly glabrous, with flowers of twice the usual size.

a.) June 27, 1868. – Mt. Tobin Range, Nev. Cumberland Canon. 6,000 ft. 9 sh.
b.) July 10, " Huntington Valley, Nev. " 4 "
c.) June 7, 1869. – Antelope Island, Salt Lake. 5,000 ft. 1 "

399. – Gayophytum ramosissimum, Torr. – (Trel. Pl. I. 513.) Readily distinguished by the short pods (2-3") on pedicels of the same length; flowers minute.

a.) July 31, 1867. E. Washoe Mts. Nev. Canon above Stockton Station. 6,000 ft. 6 sh.
b.) May 21, 1868. Humboldt Valley, near Osama, Nev. 5,000 ft. 1 "
c.) June 3, " W. Humbt. Mts., Nev. – Foothills below Unionville " 7 "
d.) " 22, " Sonyton Range, Nev. Spalding's Pass. " 1 "
e.) July 5, " Monitor Valley, Nev. " 5 "
f.) May 17, 1869. Foothills near Salt Lake City. " 1 "
g.) June 7, " Antelope Island, Salt Lake " 2 "
h.) July 22, " Foothills of Parley's Park, Utah " 6 "

400

~~397~~. – G. racemosum, Torr. – (Trel. Pl. I. 514.) Pods 8-10" long, nearly sessile, axillary along the branches; flowers minute; nearly glabrous.

a.) June 23, 1868. Sonyton Range, Nev. Spalding's Pass. 5,000 ft. 1 sh.
b.) Aug. 26, " E. Humbt. Mts., Nev. Canon above Overland Ranch. 7,000 ft. 2 "
c.) June 30, 1869. Foothills of Parley's Park, Utah. 6,000 ft. 5 "

401

~~398~~. – G. racemosum, Torr. var. ~~montanum~~ caespitosum. (Gray Pl. Fend. 176) A more simple, & reduced form; the capsules & younger portions of the plant with a short appressed pubescence; 6" high.

a.) July 24, 1868. E. Humbt. Mts. Nev. Canon above Camp Ruby 8,000 ft. 5 sh.
July 24, 1869 Canon above Parley's Park
b.) Aug. 29, " " " Peaks above Overland Ranch. 10,000 ft. 23 "
c.) Sept. 12, " Clover Mts, Nev. Below North Peak 9,000 ft. 10 "

yes it is helpful written like [illegible]

402

399.– Gayophytum diffusum, Torr. ?– (Torr. Fl. I. 513.) Flowers 1½-3" in diameter; capsules 3-6" in length, rather longer than the pedicel; calyx, capsules, & upper portions of the stem with a short spreading pubescence; shorter stamens with round polliniferous anthers; stigma capitate.

a.) Sept. 10, 1867. W. Humbt. Mts., Nev. Unionville cañon. – 5,000 ft. – 4 sp.

b.) June 27, 1868. Mt. Tobin Range, Nev. Cumberland cañon. 6000 ft. 6 "

d.) July 22, 1869. Foothills of Parley's Park, Utah " 11 "

c.) " 20, 1868. E. Humbt. Mts., Nev. Cañon above Ft. Ruby " 1 "

403.– Oenothera biennis, L.– (Torr. Fl. I. 492.)

Aug. 10, 1869. Wahsatch Mts, Utah. Provo cañon; river Bank. 3 sp.

404.– Oe. biennis, L., var. grandiflora, Torr.– (Torr. Fl. I. 492.) The most common usual form.

a.) July 17, 1867. Truckee Meadows, Big Bend, Nev. (W. W. Bailey.) 4,500 ft. 4 sp.

b.) Aug. 16, " Truckee Mts, Nev. Above Pyramid Lake 6,000 ft. 1 "

c.) Sept. 8, " W. Humbt. Mts., Nev. – Wrights Cañon " " 1 "

d.) June 27, 1868. Mt. Tobin Range, Nev. Cumberland cañon " 1 "

e.) " 30, " Battle Mt., Nev. " 2 "

f.) July 7, " Smoky Valley, Nev. – Foothills, " 1 "

g.) " 10, " Diamond Valley, Nev. " 1 "

h.) " 25, " Ruby Valley, Nev. " 2 "

i.) Aug. 7, " Huntington Valley, Nev. " 1 "

j.) June 27, 1869. Wahsatch Mts, Utah. Mouth of Parley's cañon 5,000 ft. 1 "

k.) July 10, " " " Provo cañon, (with 404.) 6,000 ft. 3 "

405.– Oe. coronopifolia, Torr.– (Torr. Fl. I. 495.)

July 1, 1869. Foothills of Parley's Park, Utah. 6,000 ft. 11 sp.

" 3 & 5 " Uintah Mts, Utah. Packs Cañon " " 10 "

" 10, " Wahsatch Mts., Utah. Provo cañon " " 2 "

406.- Orthocarpus albicaulis, Nutt.- (Trans. Am. Phil. I. 495.)

a.) ~~May~~ 16, 29 1869. Foothills near Salt Lake City. 5,000 ft. 65 sp.

b.) June 12 & 14, " Stansbury Island, Salt Lake. " 3 "

c.) July 10, " Wahsatch Mts., Utah. Provo canon " 2 "

404.- Or. albicaulis, Nutt., var. B. runcinata, Eng. (Silli. Journ. XXXIV. 234.)

b.) Aug. 19, 1868. Foothills of Ruby Valley, Nev. 6,000 ft. 5 sp.

a.) July 7, " Smoky Valley, Nev. Foothills " 2 "

405. - Or. albicaulis, Nutt., var. trichocalyx, Eng. A stout fleshy-stemmed form, early specimens almost acaulescent; flowers large; leaves tapering to a long petiole, ~~the~~ very variable in the same plant, ranging from broadly ovate & entire to lyrately pinnatifid linear, ~~with numerous~~ ~~segments linear~~; capsules 1-2½" woody, with thick base, curved.

a.) May 11 to 14, 1868. Southern foothills of Truckee & Trinity Mts., 5,000 ft. 3 sp.

b.) " 21, " Humboldt Valley, Nev. Sandhills at Cooper's ferry 2 "

c.) June 13 to 15, " Foothills of Douglas Range, 5,000 ft. 4 "

406. - Or. triloba, Nutt. (Trans. Am. Phil. I. 499.)

a.) May 11, 1868. - Truckee Valley, Nev. Foothills near Glendale 5,000 ft. 2 sp.

b.) June 8, " W. Humboldt Mts., Nev. Unionville canon. " " 1 "

c.) " 23, 30 1869. Parley's Park, Utah. 6,000 ft. 12 "

d.) July 5, " Uintah Mts., " ~~Provo canon~~. 8,000 ft. 2 "

407. - Or. marginata, Nutt.- (Trans. Am. Phil. I. 500.)

a.) May 19, 1868. Trinity Mts., Nev. Foothills west of Humb.t Lake. 5,000 ft. 3 sp.

b.) June 8, " W. Humb.t Mts., Nev. Unionville canon " " 5 "

c.) " 24, " Mt. Tobin Range; Bardwell's Pass " " 1 "

d.) May 16, 1869. Foothills near Salt Lake City " " 2 "

e.) June 3, " Antelope Island, Salt Lake. " " 2 "

f.) " 12, " Stansbury Island, " " " 2 "

410. - Or. marginata, Nutt.- A high mountain form with lance-slate acute or ovate obtuse petioled leaves, entire or slightly denticulate; corolla & calyx more or less deep purple, even before opening. a.) July 20, 1868. W. Humb.t Mts., Nev. Rich- above camp. 9,000 ft. 15 sp.

b.) " 24, " " " " Divide above camp. 9,000 ft. 5 "

c.) Aug. 16, " " " " Peak above sawmill 10,000 ft. 2 "

~~481~~ = 421

~~412~~
~~409~~. – Oenothera claraeformis, Torr. (Frem. 2d Rep. 314.) Flowers small, yellow; terminal leaflet cuneate or cordate at base; lateral ones often obsolete. The species probably includes both Oe. brevipes, Gr. & Oe. cardiophylla, Torr. and perhaps also Oe. scapoidea, Nutt. – which is the oldest name.

a.) Sept. 23, 1868. Holmes' Creek Valley, Nev. – 6,000 ft. 1 sp.
b.) May 21, 1869. Foothills near Salt Lake City. 5,000 ft. 4 "
c.) June 11, " Black Rock, S. End of Salt Lake 4,500 ft. 3 "
d.) " 15, " Carrington Island, Salt Lake " 1 "
e.) Aug. 25, " Wahsatch Mts., Utah. – Mouth of Amer.n Fork Canon. 5,000 ft. 1 "

413
~~410~~. – Oe. claraeformis, Torr. – var. with ~~never~~ larger flowers (½'-1' in diam.), yellow, or more frequently pinkish white, occasionally with a large deep-purple spot at base of the petal; the prevalent Nevada form.

a.) Aug. 17, 1867. Truckee Valley, Nev. near the Big Bend. (W.W. Bailey.) 1 sp.
b.) Nov. 9, " " " " near Pyramid Lake, 1 "
c.) May ~~10~~ 13, 1868. " " Foothills below Glendale, ~~1~~ 10 "
d.) " 15+16, " Southern foothills of Trinity Mts., Nev. 2 "
e.) " 21, " Humboldt Valley – Coopers Ferry 4 "
f.) June 15, " Unionville Valley, Nev. Foothills. 3 "
g.) July 6, " Toiyabeh Mts., Nev. Ridge above Austin 1 "

414
~~415~~ 2 Oe. Nuttallii, Torr. & Gr. – (Torr. & Fr. I. 506.)

Aug. 15, 1869. Wahsatch Mts., Utah. Lake shore above Parley's Park. 5,000 ft. 13 sp.

415. – Oe. tanacetifolia, Torr. & Gr. – (Beckwith's P.R.R. Rep. II. 121, t. 4.)

July 16, 1867. – Truckee Meadows, Glendale, Nev. (W.W. Bailey.) 3 sp.

416. – Oe. heterantha, Nutt. (Torr. & Fr. I. 507.) Stems occasionally lyrately pinnatifid + 12-15' long; growing in damp or boggy places.

a.) June 13, 1868. Dryden Range, Connelly's Pass 6,000 ft. 3 sp.
b.) " 27, " ~~Wh~~ Robin Range, Cumberland canon " 1 "
c.) July 6, " Toiyabeh Range, Austin Pass. " 1 "
d.) June 24, 1869. Wahsatch Mts., Utah. Parley's Park. " 4 "

Tom. 99

413.- Oenothera alyssoides, H. & a. (705. 71. I. 511.) Flowers nearly white, varying to deep rose-color; calyx tube linear-infundibuliform, about equalling the lobes.

a.) Sept. 19, 1867. W. Humboldt Mts., Nev. Near mouth of Cogdon cañon. 5,000 ft. 25 sh.

b.) May 11 to 14, 1868. South foothills of Truckee & Trinity Mts., Nev. " 11 "

c.) " 30, " Humboldt Valley, Nev. Near Osana " 1 "

d.) June 13 to 23, " Grass Valley, Nev. Foothills of Dryden range " 2 "

e.) July 6, " Toiyabeh Range; Ridge above Austin 6,000 ft. 12 "

f.) June 12 to 14, 1869. Stansbury Island, Salt Lake 4,500 ft. 5 "

g.) " 20, " Promontory Point, " " 1 "

415.- Oe. micrantha, Hornem. (705. 71. I. 509.)

a.) July 7, 1868. Monitor Valley, Nev. Foothills. 15 sh.

b.) June 11, 1869.- Black Rock, Salt Lake 2 "

c.) " 12, " Stansbury Island " 3 "

416.- Oe. Boothii, Dougl.- (705. 71. I. 509.) (W. W. Bailey.)

a.) Aug. 5, 1867.- Truckee Mts., Nev. Cañon above Pyramid Lake, 6,000 ft. 75 sh.

b.) Nov. 11, " Lake Range, Nev. Cañon above Winnemucca Lake. " 2 "

417.- Oe. Nuttalia, Cav. ~~var. tenella~~ (705. 71. I. 510.) Varying somewhat in size of flowers & degree of pubescence. The species Nuttalii includes Oe. Taraxia, Nutt., Oe. contorta, Hook. & Oe. chilotrioides, Nutt., ~~as given in~~ as given in Torrey & Gray's Flora.

a.) May 14, 1868. South foothills of Trinity Mts.- 5,000 ft. 85 sh.

b.) July 6, " Monitor Valley, Nev. Foothills. " 5 "

c.) June 7, 1869. Antelope Island, Salt Lake. " 10 "

418.- Oe. Nuttalia, Cav. var. (705. 71. I. 512.)

a.) May 2, 1868. Washoe Mts., Nev. Foothills near Carson City. 5,000 ft. 75 sh.

b.) June 3, " W. Humboldt Mts., " & Spring Valley Pass. 6,000 ft. 2 "

c.) " 23, " Dryden Range, Foothills of Grass Valley 5,000 ft. 2 "

XXXV

419.– Oenothera tenuina, Nutt.– (Tor. Fl. I 512.) Flowers yellow, stems 1-4 high; capsules 4-8" long, often crowded upon the stems.

a) June 24, 1869. Mt. Tobin Range, Bardwell's Pass. 6,000 ft. 9 sp.
b) " 26, " " " Cumbre Land Cañon " 2 "
c) July 9, " Monitor Valley, Nev. Roberts Station " 1 "
d) " 10-25 " Foothills of E. Humboldt Mts., & Ruby Valley 6-7,000 ft. 19 "
e) Aug. 27, " E. Humboldt Mts.– Cañon above Overland Ranch. 5,000 ft. 1 "
f) July 9, 1869. Wahsatch Mts., Utah. Weber Valley 6,000 ft. 10 "

420.– Gen. Stenosperma ? n. sp.? next to Oe. tenuina. Distinguished by its pedicelled clavate capsules & entire oblong leaves (or character of leaves ?)

May 19, 1869.– Trinity Mts., Foothills above Sorbeck's Station. 5,000 ft. 14 sp.

421.– Gen. Gabbella, Nutt.

a) Aug. 3, 1867.– Carson Valley, Nev. Rudd's station – river bottom. 4 sp.
b) " 17, " Truckee Valley, Nev. River bottom, at big Bend (W.W. Bailey.) 9 "

422.– Gaura parviflora, Dougl.– (Tor. Fl. I. 519.) Not fragment.

a) Sept. 20, 1869. Humboldt Pass, Nev. Stream bank. 4 sp.
b) June 14, 1869. Stansbury & Island, Salt Lake. 4 "

423.– Circaea alpina, L.– (Tor. Fl. I. 527.) With the reduced size (4-10') & uncalloused fruit of C. alpina, but with the slightly toothed leaves, bracteles, pedicels, & hispid fruit of C. Lutetiana – which is said to be a more eastern species.

a) July 10, 1869.– Wahsatch Mts, Utah. North fork of Provo Cañon, 7,000 ft. 215 sp.
b) Aug. 19, " " " " Cottonwood cañon, Fern fork. 5,000 ft. 2 "

M. gracilis, = M. gracilenta, Hk. 165 [illegible]

It much resembles M. [illegible], Hk. but has [illegible] [illegible] seeds & those of the [illegible] are [illegible].

138 [illegible], is a [illegible] specimen, collected in the valley [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] differently [illegible] in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] with a [illegible] [illegible] [illegible] [illegible], margin [illegible], [illegible] [illegible] [illegible] [illegible] [illegible], subsessile. Calyx [illegible] 5-cleft, [illegible] [illegible] about [illegible] [illegible] [illegible] capsule [illegible] (2" long) [illegible] [illegible]

[illegible]

Loasaceae.

426.– Mentzelia albicaulis, Dougl.– (T. & G. Fl. I. 534.) Petals light yellow, but little exceeding the calyx.

a.) May 13, 1866. Foothills of the Truckee, above the Big Bend. 5,000 ft. 4 sp.
b.) " 14, " Trinity Mts. Foothills above Humb.t Lake " 3 "
c.) June 10 to 14, " W. Humb.t Mts., Foothills near Unionville " 4 "
d.) July 24, " E. Humb.t Mts., Ner. Divide above Camp Ruby 8,000 ft. 1 "
e.) June 15, 1869. Carrington Island, Salt Lake 4,500 ft. 1 "

427.– M. albicaulis, Dougl.– var. with the flowers somewhat capitate, petals 2-3 times longer, deep yellow with an orange base; the same as the M. Veatchiana, Kell. in Proc. Calif. Acad. II. 99. Frequent in western Nevada. Foliage very variable.

a.) July 29, 1867. Truckee Valley, Ner. near the Big Bend. (W.W. Bailey.) 7 sp.
b.) May 20 & 29, 1866. Foothills of Washoe Mts, near Carson City & Washoe City. 20 "
c.) June 8 to 10, " " near Unionville, W. Humb.t Mts.– 8 "

426.– M. albicaulis, Dougl.. var. integrifolia. Stem more or less pubescent, 1-2° high; leaves ovate, oblong, or oblong lanceolate, sessile, entire or coarsely toothed or pinnatifid; flowers & fruit as in the ordinary M. albicaulis. A well marked form, (abundant in Utah,) but with no constant characteristics that can be considered specific. It is D. Vasey's No. 195. H & H. 571, Geyer 663

a.) July 20, 1866. E. Humb.t Mts., Ner. Cañon above Camp Ruby. 6,500 ft. 3 sp.
b.) June 4, 1869. Antelope Island, Salt Lake 5,000 ft. 2 "
c. " 22, " Wahsatch Mts, Utah.– Parley's cañon 6,000 ft 2 "
d.) July 1, " Parley's Park, " Foothills 6,000 ft 1 "
e.) " 10, " Wahsatch Mts, " Provo Cañon, North Fork " 2 "

427.– M. congesta, Nutt.– (T. & G. Fl. I. 534.) Rare. Lower leaves linear lanceolate, entire or pinnatifid toothed; petals yellow, with deep orange colored claw, little longer than the Calyx lobes; stamens about 20; seed 3 in each of the 4 placentae.

July 7, 1866.– Toiyabeh Mts., Ner. Foothills E. of the Austin Pass. 6,000 ft. 2 sp.

430
~~424~~.– M. laevicaulis, Torr.– (T. & G. Fl. I. 535.)

a.) Aug. 1, 1867.– Truckee valley, near the Big Bend. (W.W. Bailey.) 9 sp.
b.) Sept. 19, " W. Humb.t Mts., Ner. Coyote cañon. 3 "
c.) Aug. 30 & 1866. Foothills of Ruby Valley.– Ner. 2 "
d.) Sept. 20, " Humboldt Pass, Ner. 1 "
e.) June 20, 1869. Promontory Point, Salt Lake. 1 "

Cactaceæ.

431 Echinocactus Simpsonii, Eng.
~~429.~~ ~~Hamillaria (Coryphantha)~~ Eng.–

a.) June 25, 1868. Mt. Tobin Range. Ridge above Cumberland . . 6,000 ft. . 3 s/.
b.) " 30, " Battle Mts, Nev. west peak. . . . . " " . 1 "
c.) Toiyabeh Range – (Mr. Wilson.) . . . . . 2 "

432 O. Missouriensis, Dc. (Pth. Fl. I. 555.) Frequent on dry foothills in Utah. or canon bottoms.

a.) June 30, 1869. Foothills of Parley's Park – flowers. 6,500 ft. 6 s/.
b.) Aug. 20, " Wahsatch Mts, mouth of Cottonwood canon. 8 "

434. O. hystricina, Eng. & Big.– (Whipp. Rep. R.R. IV. 44, t. 15.) Abundant in the dry valleys of north-middle Nevada. Flowers sulphur-yellow or rose color, resembling those of O. Missouriensis, Dc.

a.) June 24+27, 1868. Reyan's Valley, Nev. Flowers, &c. . . 8 s/.
b.) July 7, " Monitor Valley, Nev. . . . . 7 "
c.) Aug. 4, " E. Humbt. Mts, Nev. South of Stage Pass. . 2 "

432. O. Missouriensis, Dc. – var. ?

July 24, 1869. Wahsatch Mts, Utah. Divide at Wahsatch Station. 4 s/.

435. O. fragilis, Nutt. – (Pth. Fl. I. 555.) Seen only in Utah Valley.

a.) July 12, 1869. Mouth of American Fork canon . . . 3 s/.
b.) Aug. 20, " " " Cottonwood canon . . . 6 "

436. O. pulchella, Eng. – [illegible] Frequent in the valleys of western Nevada.

a.) Aug. 25, 1867. – Humboldt Valley, near Humboldt Lake . . 1 s/.
b.) May 19+23, 1868. " " + foothills of Trinity Mts. . . 3 "
c.) June 11+22, " Unionville Valley, Nev. . . . 4 "
d.) July 1+2, " Reese River Valley, near mouth . . 2 "
e.) " 7 " Monitor Valley, Nev. . . . 2 "

A very handsome species; flowers often 50 or more upon a single plant. 3-10' in height. The largest number of annual rings counted in a stem was 25.

XXXII

Nothing [illegible]

Probably better to consider it [illegible], with which it seems [illegible]
[illegible] ants in wheels, & to divide HK upon it [illegible]

Ficoideae.

437.– Sesuvium Portulacastrum, L. (Gr. Man. 97.) Leaves spatulate Stem & Branches as in S. pentandrum;

a.) July 15, 1867. Truckee Meadows, or Glendale. (W. W. Bailey.) 12 s/.

b.) May 15, 1868. Hot Spring Mts, Nev. Moist alkaline Bank at Hot Springs 4 "

Umbelliferae.

438.– ?–

June 24, 1869.– Wahsatch Mts., ridge above Parley's Park, Utah. 7,000 ft. 8 s/.

439.– Cicuta maculata, L. – (Tor. Fl. I. 610.)

a.) July 1, 1868.– Truckee Meadows, near Glendale, Nev. (W. W. Bailey.) 1 s/.

b.) " 10, 1868.– Diamond Valley, Nev. – Spring bank 6,000 ft 1 "

c.) Sept. 26, " Thousand Spring Valley, Nev.– Stream bank " " 1 "

~~458.– Ligusticum scopulorum, Gr.– (Proc. Am. Acad. N. Ser. VII; 342.)~~

a.) July 31, 1868.– Uintah Mts, Utah. Bear R. cañon – meadow. 8,000 ft. 1 s/.

b.) Aug. 7, " Same locality 4 "

459.– L. apiifolium, Gr.– (Cynapium, Nutt.– Tor. Fl. I. 640.)

a.) July 14, 1869.– Wahsatch Mts, Utah. Above Cottonwood Lake. 9,000 ft. 1 s/.

b.) " 20, " " " Peak above Parley's Park. 8,000 ft. 2 "

c.) Aug. 1, " Uintah Mts., Utah. Bear River Canon, Hamfords " 2 "

460.– Archangelica Gmelini, ? var. nuda.– Alpine, 1-2°, very minute; small umbrellas, probably distinct.

a.) Aug. 9, 1869.– Uintah Mts, Utah. Divide at head of Bear R. cañon. 10,000 ft. 2 s/.

b.) " 10, " " " Peak near– 11,000 ft. 3 "

~~439.— Gamma~~

Oct. 4, 1867. Union Valley, Nev.— Ditch bank. 5,000 ft. 1 sp.

440.— C. Fairdneri, B. & H.— (Edraianthus, Pyg. 7 & 8. I. 612.) Leaves very variable; 1-2 pinnate, segments entire or lobed, short or long linear. The root an important article of food to the Indians — known as "Yis" or "Yes-ak".

a.) Oct. 1, 1867. Empire Range, Nev. Granite Peak canon 5,000 ft. 4 sp.

d.) June 23, 1868. " " Foothills of Grass Valley " " 2 "

b.) May 23 & 24, " W. Humboldt Mts., Nev. Peak east of Orana 6,000 ft. 1 "

c.) " 27, " Trinity Mts., Nev. near Orana " " 1 "

e.) July 6, " Toiyabeh Range, above Austin " " 3 "

f.) " 10, " Diamond Valley, Nev. " " 2 "

g.) " 20, " E. Humboldt Mts. (Ridge above Camp Ruby 6,500 ft. 3 "

~~444.— C. cordatum, B. & H.~~ (Thaspium, Pyg. 7 & 8. I. 615.)

June 23, 1869. Parley's Park, Utah. Creek bank. 6,000 ft. 1 sp.

441.— Ligusticum linearifolium, Mx.— (Pyg. 7 & 8. I. 611.) Leaves ranging from nearly entire to 2-3 pinnate.

a.) July 29, 1867.— Meadow valley, at the Big Bend. (W. O. Bailey.) 3 sp.

b.) Aug. 20, " " " 1 "

c.) July 25, 1868.— Ruby Valley, Nev.— 1 "

d.) Aug 12, 1869. Weber River bottom, Utah. near Coalville 2 "

~~442.~~ 442 S. angustifolium, ~~Koch.~~ 2 (S. pimpinellum, Nutt.— Pyg. 7 & 8. I. 611.)

a.) July 10, 1868. Diamond Valley, Nev. Spring bank. 6 sp.

b.) " 30, " Ruby Valley, Nev. " 9 "

c.) Sept. 20, " Humboldt Pass, warm Spring. 3 "

d.) Oct. 6, " Wahsatch Range Valley — Utah. Ansley Station. Spring bank. 3 "

e.) July 12, 1869. Jordan Valley, Utah. C. Hammond creek. 2 "

444. — Pimpinella apiodora, Gr.— (Proc. Am. Acad. N. S. VII. 345.)

Sept. 10, 1868. Clover Mts. Nev.— Head of canon below N. Peak. 9,000 ft. 4 sp.

The absence of involuntary is pretty evident

446.– Osmorhiza nuda, Torr.? (Pl. Whipp. R.R. Rep. IV. 93.) Apparently passing into O. brevistylis, DC., of which it is probably only a variety. Involucre & involucels often present, though small & pubescence variable, as with size & shape of leaflets.

a.) May 29, 1864. Wahsatch Mts., Utah. City creek canon. 5,000 ft. 6 sp.
b.) July 5, " Uintah Mts., Utah. Provo canon. 7,000 ft. 8 "
c.) " 10, " Wahsatch Mts., " North fork of Provo canon " 1 "
d.) Aug. 12, " Uintah Mts., Utah. Ridge above Bear R. canon 9,000 ft 3 "

446.– Myrrhis occidentalis, Nutt. (Glycosma, Nutt.– Torr. & G. I. 639.) Variable in size & section of leaves, in pubescence, in also in length of the fructiferous pedicels – including M. Bolanderi, Gr.

a.) June 5, 1864. W. Humbt Mts.,– Unionville canon. 7,000 ft. 6 sp.
b.) " 27, " Mt. Tobin Range. Nev. Cummings Ranch canon. 6,000 ft. 2 "
c.) July 24, " E. Humbt Mts., Nev.– Canons above Camp Ruby 7,000 ft. 2 "
d.) Aug. 19, " " " Fremonts Pass, 6,500 ft. 2 "
e.) June 29, 1864. Wahsatch Mts., Utah. Ridge above Parley's Park. 7,000 ft 2 "

1, 46
447.– Cymopterus nov. sp.

a.) July 27, 1864. E. Humbt Mts., Nev.– Peak above Ft. Ruby. 9,000 ft. 8 sp.
b.) " 30, " " " " Peak above Sawmill. 10,000 ft 16 "
c.) Aug. 31, " " " Peak above Overland Ranch. " 3 "

447
448.– C. montanus, Nutt.– (Torr. & G. I. 624.) var. globosus Stamens of crown very fine & central, or among the whole umbel. Flowers in dense globose heads, anthers of one fertile; concealing the broad membranaceous involucre & involucels; involucels 1-3, equalling the leaves; carpophore very slender, 2-cleft to base; vittae, 3 in the intervals, & 3-4 on each side of the commissure, opposite the edges of the involute semi-lunar seed; fruit 5-7" long, ribs 2-3" broad.–

Apr. May 29, 1864.– Mt. Davidson & Carson Valley, Nev. 5–7,000 ft. 12 sp.
May 19, " Trinity Mts., Nev. Hills above Parkers station. 6,000 ft 2 "

Prichard described the species from young flowering specimens, with which this agrees. Peduncles elongating in fruit

C. montanum - best distinguished by involucres, yellow flowers, [illegible] habit.

Sphaeranthus

Sellinum

449.– Cymopterus glaucus, Nutt.– (T.&G. Fl. I. 624.)

a.) June 30, 1868. Battle Mt., Nev. High Divide 7,000 ft. 2 sp.

b.) July 24, " E. Humb't Mts., Nev. Ridge above Camp Ruby. 7,000 ft. 1 "

450.– C. ~~trachiathinus~~, T.&G., ~~var~~ fornicalaceus, ~~T.&G.~~ C. fornicalaceus, Nutt.– T.&G. Fl. I. 624.)

a.) Sept. 15, 1867. E. Humb't Mts., Nev.– Star Peak 9,000 ft. 2 sp.

b.) May 2, 1868. Washoe Mts., Nev. Clear Creek Canon 6,000 ft. 1 "

c.) June 15 " W. Humb't. Mts., Canon above Unionville 8,000 ft. 4 "

451.– C. anciatus, Pr. (Proc. Acad. Nat. Sci. Phil. 1863, p. 63.) Fruit glabrous, 2" long, carpels ~~from~~ unequally developed, irregularly & narrowly winged, one dorsal juga more prominent – normally the central one – & nearly equalling the narrow marginal wings; vittae one in each interval, 2-4 in the commissure – sometimes very obscure; involucre sometimes ~~wanting~~; & a few subulate linear or filiform bractlets. Carpophore deeply 2 cleft

a.) Aug. 27, 1868. E. Humb't. Mts., Nev.– Ridge above Overland Ranch. 8,000 ft. 6 sp.

b.) July 13, 1869.– Wahsatch Mts., Utah.– Fork of Cottonwood Canon " 1 "

c.) Aug. 19, " same locality – 2 "

~~452.~~ – C.–

a.) May 17, 1869. Wahsatch Mts, Utah. City Creek canon – Hillsides – 5,000 ft. 8 sp.

b.) June 3, " Antelope Island, Salt Lake 1 "

452 > Thaspium trifoliatum, Gray.

455.– Angelica Kingii (S. Wats.) – Fruit glabrous,

a.) Sept. 10, 1867. W. Humb't Mts., Nev.– Wrights canon 7,000 ft. 1 sp.

b.) Oct. 1, " Sonoma Range, Nev. Granite Peak canon. 5,000 ft 2 "

c.) Aug. 26, 1868. E. Humb't. Mts., Nev. Canon above Overland Ranch. 8,000 ft. 3 "

~~454.~~ – A. ~~Kingii~~ ~~(S. Wats.)~~ Coult. & Rose. – 1-2

a.) Sept. 10, 1867. W. Humb't Mts., Nev. Wrights canon 6,000 ft. 1 sp.

b.) Aug. 3, 1868. Ruby Valley – Nev. Stream bank. " 4 "

c.) " 25, " E. Humb't. Mts., Nev. – Poplar Creek canon " 3 "

~~457.~~ Angelica phoenicia, Nutt.? — (Tr. & Fl. I. 628.)

a.) July 20, 1869. Wahsatch Mts, Utah. Canon near Parley's Pass. 7,000 ft. 1 s/.

b.) Aug.), " Uintah Mts., Utah. Bear R. canon. 6,000 ft. 4 "

c) " 18, " Wahsatch Mts., Canon above Parley's Park. 7,000 ft. 1 "

458.- Ferula multifida, Torr.- (Leptotaenia multifida, Nutt.- Trs. & Fl. I. 630.) Very frequent on dry foothills; root large, fusiform; involucre deciduous. "Tot-sip"; "heap no-tak".

a.) May 2, 1869. Foothills near Carson City, Nev. 5,000 ft 2 s/.

b.) " 27, " " " Jr Trinity Mts., near Orana. " 1 "

c.) June 26, " Mt. Tobin Range, Cumberland Canon " 2 "

d.) Aug. 6, " E. Humboldt Mts, Nev. Canon above Camp Ruby 7,000 ft. 2 "

e.) May 16, 1869. Wahsatch Mts, Utah. City Creek canon 5,000 ft. 2 "

f.) July 1, " " " Parley's Park 6,000 ft. 1 "

~~459.~~ 2 Nov. sh.

a.) May 19 & 25, 1869.- Wahsatch Mts., Utah. City creek canon 5,000 ft. 11 s/.

b.) June 24, " " " Ridge above Parley's Park 6,500 ft. 6 "

c.) " 26, " " " Foot-hills " 6,000 ft 6 "

460.- Peucedanum latifolium, Nutt.- (Trs. & Fl. I. 625.) Root long & cylindrical; rittan obscure, interrupted. (P. Nuttallii, (P. latifolium, Nutt. (Trs. & Fl.) non DC.)

a.) June 24 & 25, 1869. Mt. Tobin Range, Foothills of Pagan's Valley 6,000 ft. 2 s/.

b.) " 25, " " " Peak above Cumberland 6,000 ft. 4 "

461.- P. sativum, Torr. & H.- (Pastinaca sativa, L.-) Introduced.

July 25, 1869. Ruby Valley, Nev.- Stream bank. 2 s/.

462.- P. Nudicaule, Nutt.- (Trs. & Fl. I. 626.) Quite variable in size & habit. The earliest flowering plant at Carson City.- Very frequent in W. Nevada.

a.) Mar. 26, 1869.- Near Carson City, Nev. Sagebrush Valley 10 s/.

b.) Apr. 22, " Foothills near Carson City. 6 "

c.) May 27, " Trinity Mts, Nev. Peak west of Orana 2 "

d.) June 10, 69 " W. Humboldt Mts, Nev. above Unionville. 2 "

var. megacarpum, glabrous throughout, fruit 3-4 [illegible] the normal form (6 x 4") [illegible] 12' high [illegible] in the [illegible].

Approaching nearly [illegible], which includes [illegible] in the [illegible], more compact [illegible], & less [illegible] fruits, [illegible] in the [illegible] [illegible] by [illegible] in [illegible], by [illegible] in [illegible], by [illegible]

= [illegible] [illegible] Cf. +

[illegible] fruit 6" x 8", 14' high [illegible]

[illegible]

463.– Pencedanum ~~foeniculaceum, Nutt.~~ (Trel. Pl. N. 627.)

June 3, 1869. Antelope Island – Salt Lake. 5,000 ft. 6 sh.

464. – P. macrocarpum, Nutt. – ("Hó-ni-bó-i") (Trel. Pl. N. 627.) A specimen has yellow flowers & more glabrous involucels, but is probably the same

a.) May 29, 1869. Trinity Mts., Nev. Ridges west of Orana – 2 sh.

b.) June 3, " W. Humbt. Mts., Nev. – Foothills below Unionville 1 "

c.) " 19, " " 3 "

465. – P. [illegible] "Jăi-ki".

a.) Apr. 29, 1869. – Washoe Mts., Nev. – Mt. Davidson. 7,000 ft. 8 sh.

b.) May 14-27, " Trinity Mts., Nev. – Foothills 5,000 ft. 8 "

c.) June 30, " W. Humbt. Mts., Nev. – " 5-6,000 ft. 3 "

d.) " 30, " Battle Mt. – Nev. – High divide 7,000 ft. 1 "

466. – P. [illegible] a dwarfed alpine form. Vittae in- [illegible] & glabrous. Carpels

a.) July 27, 1869. E. Humbt. Mts., Nev. Peak above Ft. Ruby. 9,000 ft. 4 sh.

b.) Aug. 22, " " " Peak below Camp Ruby. 8,000 ft. 6 "

467. – P. [illegible] ex. Nutt. Mss. – [illegible] glabrous stem & walls [illegible]

a.) May 17-29, 1869. Foothills near Salt Lake City. 5,000 ft. 9 sh.

b.) June 30, " Wahsatch Mts., Utah. Ridge above Parley's Park. 6,500 ft. 3 "

c.) July 19, " Same locality 1 "

468. – P. [illegible] – subalpine & alpine, [illegible] gracilens.

a.) July 5, 1869. Uintah Mts., Utah. Divide between Provo & Du Chesne Rivers. 9,000 ft. 15 sh.

b.) " 15, " Wahsatch Mts. " Divide & ridge above Cottonwood – " " 1 "

c.) " 20, " " " Peak west of Parley's Park " " 8 "

d.) Aug. 12, " Uintah Mts. – Ridge above Bear R. canon " " 1 "

469.- Heracleum lanatum, Mx.- (Fl. Bor.-Am. I. 632.) Frequent in mts. of Utah.

a.) Oct. 1, 1868. Goose Creek Mts., Utah. Emigrant Pass. 6,000 ft. 5 sp.

b.) July 10, 1869. Wahsatch Mts, Utah. Provo Canon " 4 "

c.) " 20, " " " Canon above Parley's Park " 1 "

470. [illegible] Oct 11/69. Uniontville Valley, Nev. Ditch bank. 9m. 1 sp.

Cornaceæ.

471. Cornus stolonifera, Mx.- (Fl. Bor.-Am. I. 250.) Frequent on mountain streams at a low altitude; 6-8° high. Berries white, becoming lead color.

a.) Sept. 8, 1867. W. Humb.t Mts., Nev. Wrights canon. (W. H. Bailey.) 5,000 ft. 7 sp.

b.) June 6th, 1868. " " Uniontville canon. 5,000 ft. 9 "

c.) " 27, " Mt. Tobin Range, Nev. Cumberland Canon " " 4 "

d.) Aug. 1, -25 " Ruby Valley 6,000 ft 6 "

e.) May 18, 1869. Wahsatch Mts, Utah. City Creek canon 5,000 ft 2 "

f.) July ?, " Uintah Mts, Utah. Provo Canon 7,000 ft. 3 "

g.) Aug. 20, " Wahsatch Mts, " Cottonwood canon. Infinite flowers. 2 "

Caprifoliaceæ.

472.- Linnæa borealis, Gron.- (Fl. Bor.-Am. II. 2.)

July 31 to Aug. 2, 1869. Uintah Mts, Utah. Bear R. canon. 8,000 ft. 18 sp.

473.- Symphoricarpus montanus, H.B.K. (Kth. Syn. III. 72.) Very variable; leaves soft pubescent & ciliate, or shortly glabrous, acute or obtuse, entire or lobed, orbicular to ovate lanceolate, 1/4'-1 1/2' in length; flowers with corolla 2-4" long, nearly glabrous within, light pink, axillary, distant along the leafy branch, or in a somewhat close naked spike; fruit globular or oblong, white; a straggling shrub, 2-8° high, very frequent upon the mountains. Probably includes S. microphyllus H.B.K. as well as S. glaucescens - + possibly S. rotundifolius, Gr.

a.) Aug. 5 " Same [illegible] (W. H. Bailey.) 6,000 ft 3 sp.

b.) Aug. 16, 1867. Truckee Mts, Nev.- Above Pyramid Lake 7,000 ft. 6 sp.

c.) Sept. 9, " W. Humb.t Mts., Star Peak 9,000 ft. 4 "

d.) June 27, 1868.- Mt. Tobin Range, Cumberland Canon 6,000 ft 1 "

e.) " 30, " Battle Mts.- west canon " " 4 "

f.) July 6, " Toiyabe Mts, Nev.- above Austin " " 5 "

g.) " 20, " E. Humb.t Mts.- canon above Camp Ruby 7000 " 4 "

h.) Aug. 4, " " " Peak south of Stage Pass 8,000 " 2 "

i.) " 17, " " " Divide above Camp Ruby " " 1 "

j.) Sept. 8, 1868. Clover Mts. Nev. Ridge above Secret Valley 5,000 ft. 2 sh.

k.) May 24, 1869.- Wahsatch Mts, Utah. City creek canon. 5,000 ft. 2 "

l.) July 6, " Uintah Mts, Utah.- Ridge above Duchesne River- 9,000 ft. 3 "

m.) " 26, " Wahsatch Mts, " Silver creek canon. 6,000 ft 3 "

474.- Lonicera involucrata, Banks.- (709.71.II.9.) Bracts reflexed in fruit, and with the berries deep purple.

a.) Aug. 26 & 27, 1868. E. Humbt. Mts., Nev.- Canon & Lake above Overland Ranch. 8-9,000 ft. 9 sh.

b.) June 24, 1869. Wahsatch Mts, Utah. Above Parley's Park. 7,000 ft. 2 "

c.) July 7, " Uintah Mts, " Provo canon " 1 "

475.- L. ciliata, Nuttl. ? var. ~~L. Pyrolifolia~~ [illegible]

& without ciliations. In the absence of [illegible]

Aug. 14, 1869.- Wahsatch Mts, Utah. Cottonwood canon. 9,000 ft. 15 sh.

476.- Sambucus [illegible] Mx.- (709.71.II.13.) Leaves variable, broad elliptic, ovate or oblong lanceolate; sometimes laciniately pinnatifid at the apex with a long acumination, pubescent or glabrous beneath.

a.) May 14, 1869. Wahsatch Mts, Utah. City creek canon. 5,000 ft. 6 sh.

b.) June 24, " " " Ridge above Parley's Park. 7,000 ft 3 "

c.) Aug. 12, " Uintah Mts, " Ridge above Bear R. canon 9,000 ft. 2 "

d.) " 14, " Wahsatch Mts, " Above Parley's Park. 8,000 ft 3 "

477.- S. glauca, Nutt.- (709.71.II.13.) Distinguished from S. canadensis by the more lanceolate leaflets, the short straight serratures, and the glaucous blue fruit, which is also more pleasant to the taste. Leaflets often with glaucous stipellate appendages, & occasionally sub-bipinnate.

a.) Sept.(?), 186[illegible].- W. Humbt. Mts., Nev. Wright's canon. (W.W. Bailey.) 7,000 ft 6 sh.

b.) " 19 " Same locality. 3 "

c.) July 7, 1868. Monitor Valley, Nev.- Foothills- 6,000 ft 2 "

d.) " 24, " E. Humbt. Mts., Nev.- Canon above Camp Ruby. 7,000 ft. 1 "

e.) Aug. 1, " Ruby Valley, Nev. 6,000 ft. 2 "

Rubiaceæ.

479.– Galium trifolium.– nov. sp.?

a.) May 27, 1868.– Trinity Mts., Nev.– Shade of granite rocks.– 5,000 ft. 10 sh.
b.) June 29, " Ridge west of Battle Mt., near summit Spring– Shade of Junipers.– 6,000 ft. 5 "
c.) July 20, " E. Humbt. Mts., Nev. Ridge above Camp Ruby– Shade of Nut Pine.– 7,000 ft. 25 "
d.) June 24, 1869. Wahsatch Mts., Utah. Cañon above Parley's Park.– 6,500 ft. 15 "

479.– G. aparine, L.– (Pls. Fr. II. 20.)

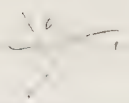
a.) May 9, 1868.– Steamboat Springs, Nev. near Washoe City.– 5,000 ft. 6 sh.
b.) May 20 & 27, " Trinity Mts.– foot hills. " 2 "
c.) June 3-10, " W. Humbt. Mts., Nev.– Foothills " 4 "
d.) July 20, " E. Humbt. Mts. nr. Cañon above Camp Ruby 6,000 ft. 1 "
e.) May 17, 1869.– Wahsatch Mts, Utah.– City Creek cañon 5,000 ft. 3 "
f.) June 3, " Antelope Island– Salt Lake 1 "

480.– G. Bloomeri, Gr.– ♂ (Proc. Am. Acad. A. of S. VII. 534.) Leaves broadly ovate; flowers pedunculed; pedunculus not reflexed; fruit very hispid, 1" in diameter.

July 31, 1869. Wasatch Mts, Nev. East of Virginia City. 7,000 ft. 8 sh.
Sept. 15, " W. Humbt. Mts, Nev.– Star peak 8,000 ft. 10 "
May 23, 1868 " " " East of Dearing 5,000 ft 1 "
July 27, " E. Humbt. Mts, Nev. Peak above Ft. Ruby 9,000 ft 1 "

481.– G. hypotrichium, Gr.– ♀ (Proc. Am. Acad. A. of S. VII. 534.)

a.) July 27, 1868. E. Humbt. Mts, Nev. Peak above Ft. Ruby. 9,000 ft. 7 sh.
b.) Aug. 4, " " " Peak south of Stage Pass. 8,000 ft. 1 "
c.) " 10, " " " Ridge above Summit. 9,000 ft. 4 "
d.) June 17, 1869. Pilot Rock Point. South end Salt Lake 5,000 ft. 5 "
e.) July 13, " Wahsatch Mts., Utah. Fern fork, Cottonwood cañon. 7,000 ft 1 "
f.) " 14, " " " Above Cottonwood Lake 9,500 ft. 1 "
g.) Aug. 19, " " " same locality as (e.) 3 "



482.– Galium triflorum, L.– (Trb. Fl. II. 22.)

a.) June 23, 1869. Parley's Park, Utah 6,000 ft. – 1 sp.

b.) July 10, " Wahsatch Mts, Utah. Provo Canon " 5 "

483.– G. triflorum, Mx.– (T. & G. I. 23.)

a.) Sept. 9, 1869. Clover Mts, Nev. – Dering's Ranch.– 6,000 ft. 3 sp.

b.) July 7, 1869. Uintah Mts, Utah.– Provo canon. 7,000 ft. 4 "

c.) Aug. 17, " Wahsatch Mts, " Canon above Parley's Park. 6,000 ft. 1 "

~~485.~~ 484 G. boreale, L.– (T. & G. Fl. II. 25.)

a.) Sept 1, 1869.– Ruby Valley, Nev. near Overland Ranch. 6,000 ft. 4 sp.

b.) " 3, " E. Humbt. Mts., " Canon above Hemmenway's. 6,500 ft. 5 "

c.) June 22, 1869. Wahsatch Mts, Utah. Parley's Canon 5,000 ft. 3 "

d.) July 17, " " " East creek canon 6,000 ft. 3 "

e.) " 27, " " " Echo canon " " 2 "

~~484.– G. triflorum, Mx.– with narrow lanceolate leaves, nearly a brownish purple flowers~~ asperrimum, Gr. – with purplish flowers, as in 6350 1862.

Aug. 1, 1869. Ruby Valley – Nev.– Shadd's bank of Cave Creek. 6,000 ft. 3 sp.

Valerianaceae.

486.– Valeriana dioica, L., var. sylvatica. (V. sylvatica, Rich.– Trb. Fl. II. 47.)

a.) July 20, 1869.– E. Humbt. Mts., Nev.– Canon above Camp Ruby– 7,000 ft. 11 sp.

b.) " 27, " " " Peak above Ft. Ruby 9,000 ft. 7 "

c.) Sept. 2, " " " Canon above Overland Ranch. 7,000 ft. 3 "

d.) June 24, 1869. Wahsatch Mts., Utah. Canon above Parley's Park.– 6,500 ft. 1 "

e.) July 8, " Uintah Mts., " Provo Canon 7,000 ft. 1 "

f.) Aug. 26, " Wahsatch Mts.– " Head of American Fork 9,000 ft. 6 "

487.– V. edulis, Nutt.– (T. & G. Fl. II. 48.)

a.) July 3, 1869.– Toiyabeh Mts, Nev.– Clear Creek canon. 6,000 ft. 2 sp.

b.) " 11, " Ruby Valley, Nev. " 3 "

c.) June 23+29, 1869.– Wahsatch Mts, Utah. Parley's Park " 7 "

Hyv.- Plectritis congesta, DC.- (Tor. & Fr. II. 50.)

a.) Apr. 14, 1868.- Foothills of Washoe Mts., near Carson City. 5,000 ft. 12 sp.
b.) May 14, " Trinity Mts., Nev.- foothills near Humb. Lake " 1 "
c.) June 3, " W. Humb. Mts., " " near Unionville " 1 "
d.) " 12, " Diamond Range, Nev. " 5,500 ft 1 "
e.) July 2, " Reese River valley- foothills " 1 "
f.) May 21, 1869. Foothills near Salt Lake City, Utah. 5,000 ft. 3 "

Lobeliaceae.

Downingia pulchella, Torr. (Clintonia, Hook.- DC. Pr. VII. 347.)

July 18, 1867. Truckee Meadows, near Glendale.- (W. W. Bailey.) 10 sp.

Campanulaceae.

Campanula, rotundifolia, L. var. Langsdorffiana. Quite variable in the ~~corolla~~ length & breadth of the calyx segments. The alpine specimens (b.) are exactly like Greenland plants, referred to C. linifolia.

a.) July 30, 1869.- Uintah Mts, Utah. Bear River Canon. 8,000 ft. 15 sp.
b.) Aug. 3, " " " Peak above Bear R. canon. 10,000 ft 8 "

C. uniflora, L.

Aug. 3, 1869. Uintah Mts. Utah. Peak above Bear R. canon 11,000 ft. 12 sp.

Specularia perfoliata, DC.- (Gr. Mon. 286.) Rare.

May 27, 1869. Wahsatch Mts, Utah. City Creek canon 5,000 ft. 7 sp.

S. perfoliata, DC. var. nov. sp.: Rare; more slender, & somewhat branching from the base; nearly glabrous, but slightly spinulose hairy; calyx lobes broad ovate, toothed; 1-6' high.

a.) June 27, 1868. Mt. Robin Range, Nev. Cumberland Canon. 6,000 ft. 9 sp.
b.) Aug. 26, " E. Humb. Mts, Nev. Canon above Overland Ranch. " 1 "

Ericaceæ.

5. Vaccinium myrtilloides, Mx. (Gr. Man. 291.) Rare.

July 7, 1869. Uintah Mts., Utah. Canon above Duchesne River. 9,000 ft. 7 sp.

7. V. Myrtillus, L., var. microphyllum, Hook. (Hk. Fl. Bor. Am. II. 33.) very abundant in the shade of pines among the high Uintahs. 6'-1° in height.

a.) July 6, 1869. Uintah Mts., Utah. Divide above the Duchesne. 9,000 ft. 45 sp.

b.) Aug. 12, " " " Bear River canon 8,000 ft. 6 "

9. V. cæspitosum, Mx. (Gr. Man. 291.)

a.) Sept. 10 & 12, 1868. Clover Mts, Nev. 9,000 ft. 12 sp.

b.) Aug. 1 & 4, 1869. Uintah Mts, Utah. Bear River Canon. 8-9,000 ft. 8 "

6. V. uliginosum

Aug. 4, 1869. Uintah Mts., Utah. Head of Bear R. canon 9,000 ft. 7 sp.

Arctostaphylos Uva-ursi, Sprang. (Gr. Man. 292.)

a.) Sept. 3, 1868. Ruby Valley, Nev. near Hammemann's Ranch. 6,000 ft. 7 sp.

b.) July 29, 1869. Bear River Valley, Utah. near Evanston. " 2 "

c.) Aug. 11, " Uintah Mts., Utah. Bear River Canon 8,000 ft. 2 "

11. A. glauca, Lindl.

May 2, 1868. Washoe Mts, Nev. Above Carson City. 6,000 ft. 4 sp.

~~A. pungens, H.B.K.~~ A. glauca, Lindl. 1130

a.) July 5, 1869. Uintah Mts., Utah. Provo River canon. 7,000 ft. 8 sp.

b.) " 7, " " " Above Duchesne River 9,000 ft. 2 "

c.) Aug. 12, " " " Ridge above Bear R. canon. 8,000 ft. 1 "

12. Gaultheria hyemalis, Hook. (Hk. Fl. Bor. Am. II. 35, t. 129.)

Aug. 4 to 10, 1869. Uintah Mts, Utah. Bear River canon. 8-9,000 ft. 12 sp.

13. Kalmia glauca, Ait., var. microphylla, Hook. (Hk. Fl. Bor. Am. II. 41.)

a.) Aug. 27, 1868. E. Humboldt Mts, Nev. Lake shore, above Overland Ranch. 9,000 ft. 20 sp.

b.) Sept. 10, " Clover Mts, Nev. Below North peak 9,500 ft. 2 "

c.) Aug. 4, 1869. Uintah Mts., Utah. Head of Bear R. canon 9,000 ft. 9 "

Sedum glandulosum, Nutt. (Walp. Ann. III. 1123.)

a.) Aug. 27, 1869. E. Humb.t Mts, Nev. - Lake shore, above Overland Ranch. 9,000 ft. 12 sp.

b.) " 2, 1869. Uintah Mts., Utah. Ridge above Bear R. cañon 9,000 ft. 3 "

Pyrola rotundifolia, L., var. incarnata. (Gr. Man. 301.)

a.) Aug. 25, 1869. - E. Humb.t Mts, Nev. Poplar Creek cañon 6,500 ft. 7 sp.

b.) " 26, " " " Cañon above Overland Ranch. " " 5 "

c.) July 7, 1869. Uintah Mts, Utah. Provo cañon 7,000 sp. 5 "

P. chlorantha d.) " 27, " Wahsatch Mts, " Echo cañon 6,500 ft. 8 "

P. secunda, L.- (Gr. Man. 302.) Rare.

a.) July 5 + 7, 1869. Uintah Mts, Utah. Provo cañon. 7,000-8,000 ft. 6 sp.

b.) " 31, " " " Bear R. cañon 8,000 ft. 9 "

Moneses uniflora, Gr. (Gr. Man. 303.) Not in bloom. Rare.

July 6, 1869. Uintah Mts, Nev. Divide above Duchesne R. - Shade of Pines. 9,000 ft. 18 sp.

Chimaphila umbellata, Nutt. (Gr. Man. 303.) Rare.

July 7, 1869. - Uintah Mts, Utah. Provo Cañon. 5 sp.

Pterospora Andromedea, Nutt. - (Gr. Man. 303.) Rare. Shade of pines; 1-3°.

Aug. 7 to 12, 1869. Uintah Mts, Utah. Ridge above Bear R. cañon. 8,000 ft. 145 sp.

Plantaginaceae.

Plantago eriopoda, Torr. (Walp. Ann. III. 281.) Leaves fleshy, oblong lanceolate, 1-2' wide; scapes somewhat hairy, 1°-1½° high; pod 4-5 seeded; growing in clayey sub-alkaline meadows. Not frequent.

a.) Aug. 4, 1869. Ruby Valley, Nev. 6,000 ft. 8 sp.

b.) July 30, 1869. Bear River Valley, above Evanston. 6,500 ft. 7 "

P. juncilla, Nutt. ——— (Gr. Man. 312.) Rare.

June 3, 1869. Salt Lake Valley. Meadows near mouth of Jordan. 4,500 ft. 11 sp.

P. Patagonica, Jacq.- var. gnaphaloides, Gr.- (Gr. Man. 312.)

a.) May 31 & June 3, 1869. Salt Lake Valley, near mouth of Jordan 4,500 ft. 12 sp.

b.) June 4 & 7, " Antelope Island, Salt Lake " 4 "

c.) July 12, " Utah Valley - Little Cottonwood creek bottom. " 5.

Primulaceae.

24.— Primula Parryi, Gr. (Sill. Jour. XXXIV. 257.)

a.) Aug. 29, 1869. E. Humbt. Mts. Nev.— Peak above Overland Ranch. 9,500 ft. 4 sh.

b.) Sept. 7, " Clover Mts., Nev. Under South Peak. 9,000 ft. 3 "

c.) Aug. 4, 1869. Uintah Mts., Utah. Head of Bear R. cañon 8-9,000 ft. 5 "

Androsace septentrionalis, L.— (Hk. f. Bor. Am. II. 119.)

a.) June 25, 1869. Wahsatch Mts., Utah. Cañon above Parley's Park. 6,500 ft. 15 sh.

b.) July 5, " Uintah Mts, Utah. Provo cañon 8,000 ft. 3 "

c.) " 6, " " " Ridge above Duchesne River. 9,000 ft. 3 "

A. septentrionalis, L. Alpine form, with reduced scapes.

a.) Sept. 3, 1869. E. Humbt. Mts, Nev. Peak above Hummemans Ranch. 10,000 ft. 4 sh

b.) " 9, " Clover Mts., " Under North Peak " " 4 "

c.) Aug. 10th, 1869. Uintah Mts., Utah. Ridges above Bear R. cañon, " " 3 "

A. occidentalis, Ph. A sage brush form.

May 31, 1869. Jordan Valley, near Salt Lake City. 4,500 ft. 20 sh.

Dodecatheon Meadia, L. (Gr. Man. 314.) Known by the Piutes as "Nah, li-wa-tah."

a.) June 24 + 27, 1869. Mt. Tobin Range, Nev. Cumberland cañon. 6,000 ft. 4 sh.

b.) July 2, " Reese River Valley. 5,000 ft. 1 "

c.) " 11, " Ruby Valley. 6,000 ft. 1 "

d.) Aug. 25, " E. Humbt. Mts, Nev. Cañon above Overland Ranch. 9,000 ft. 5 "

e.) July 14, 1869. Wahsatch Mts., Utah. Cottonwood Lake 9,000 ft. 4 "

f.) June 24, " " " Cañon above Parley's Park 6,000 ft. 5 "

g.) Aug. 2, " Uintah Mts, Utah. Ridge above Bear R. cañon 8,000 ft. 2 "

D. Meadia, L. The ordinary, dwarf alpine form with 1-few flowers and narrow or slong lanceolate leaves tapering to the petiole.

a.) Aug. 27-31, 1869. E. Humbt. Mts, Nev. Head of cañon above Overland Ranch. 9,000 ft. 7 sh.

b.) Sept. 3, " Clover Mts, Nev. Cañon above Hummemans. 9,500 ft. 6 "

D. Meadia, L. var. frigida.?— The exact counterpart of specimens in Herb. Eaton of D. frigida, Ch. & Sch., from Behring's Straits. Made of the leaf ovate, narrowing abruptly into the petiole, subrepand. No other distinction is evident, and similar leaves are found in specimens of acknowledged D. Meadia, both from California & the Eastern States, found growing in a single locality.

Aug. 19, 1869. Wahsatch Mts, Utah. Fork of Cottonwood cañon. 9,000 ft. 4 sh.

31.— Lysimachia ciliata, L. (Gr. Man. 315.)

a.) July 10, 1869. Wahsatch Mts., Utah. Provo cañon. 5,500 ft. 4 sp.

b.) " 12, " Jordan Valley, Utah. On Cottonwood Creek. 5,000 ft. 6 "

32.— Glaux maritima, L.— (Gr. Man. 316.)

Sept. 20, 1868. warm spring, Humboldt Pass 6,000 ft. 4 "

a.) May 31, 1869. Jordan Valley, Utah. Near Salt Lake city. 12 sp.

b.) June 11, " Tuilla Valley, " South end of Salt Lake. 6 "

33.— Samolus Valerandi, L. (Gr. Man. 317.)

June 6, 1869. Antelope Island, Salt Lake. 8 sp.

Lentibulaceæ.

34.— Utricularia vulgaris, L. (Gr. Man. 318.)

Aug. 12, 1868.— Ruby Lake, Nev. 12 sp.

U. minor, L.? (Gr. Man. 318.) Barren specimens, apparently of this species.

a.) Sept. 30, 1868. ~~Hot~~ Goose Creek Valley, Utah. Warm Spring. 7 sp.

b.) Aug. 13, 1869. Uintah Mts., Utah. Bear River cañon. 8000 ft. 5 "

Orobanchaceæ.

Pedicularis Groenlandica, Engl. (Proc. Am. Ac. A.S. VII. 372.) The prevalent western form and frequent in the valleys of Nevada. The calyx lobes are often much elongated, equalling or exceeding the corolla, while the corolla limb also varies in the size & depth of its divisions. Eaten by the Piutes, & known as "Poo-shoo."

a.) Sept. 5, 1868. Humboldt Meadows, Nev. near Osana. (W. W. Bailey.) 8 sp.

b.) " 10, " E. Humbt. Mts., Nev. Unionville cañon 5,000 ft. 13 "

c.) July 7, 1868. Monitor Valley, Nev. On sage brush roots. 5,500 ft. 3 "

d.) ~~Sept.~~ Oct. 3, " Raft River Valley, Utah.— 5,000 ft. 1 "

e.) June 6, 1869. Antelope Island, Salt Lake. " 2 "

f.) Aug. 19, " Wahsatch Mts., Utah. Provo fork of Cottonwood cañon 8,000 ft. 1 "

37.— Aphyllon uniflorum, T. & G.— (Gr. Man. 323.)

June 25 + 29, 1869. Wahsatch Mts, Utah. Cañon above Parley's Park. 7,000 ft. 2 sp.

Aphyllon fasciculatum, Nutt. (Gr. Man. 323.) Usually under sage brush.

a.) June 14, 1868.– Unionville Valley, Nev.– 10 s/.

b.) " 23, " ~~Douglas~~ range, Nev. Foothills of Grass Valley 2 "

c.) July 20, " E. Humbt. Mts, Nev. Ridge above Camp Ruby 6,500 ft. 5 "

d.) May 21, 1869. Foothills near Salt Lake city 1 "

e.) June 6, " Antelope Island, Salt Lake 2 "

f.) " 25, " Wahsatch Mts, Utah. Canon above Parley's Park 1 "

Scrophulariaceæ.

Verbascum Thapsus, L. (Gr. Man. 325.) Introduced.

July 12, 1869. Jordan Valley, Utah. On Cottonwood Creek. 1 s/.

Antirrhinum

a.) May 13 to 14, 1868. South foothills of the Mucken & Trinity Mts, Nev. 5,000 ft. 11 s/.

b.) June 14 to 22, " Unionville Valley, Nev. " 8 "

c.) " 29, " Valley west of Battle Mt., Nev. " 12 "

d.) July 2, " Shoshone Range, Reese River Pass. " 2 "

e.) June 15, 1869. Stansbury's Island, Salt Lake 4,500 ft. 1 "

Scrophularia nodosa, L. (Gr. Man. 327.)

a.) June 8, 1868. W. Humbt. Mts., Nev. Unionville canon 5,500 ft. 2 s/.

b.) Sept. 21, " Foothills above Humboldt Pass, Stream bank 6,000 ft. 2 "

c.) June 23, 1869. Parley's Park, Utah " " 1 "

d.) Aug. 14, " Canon above Parley's Park, " " 1 "

S. nodosa, var..?

Oct. 10, 1867.– W. Humbt. Mts., Nev. Unionville canon.. 5,500 ft. 4 "

g.) July 10, 1869, Huntington valley, Nev. 6,000 ft. 1 sp.
h.) " 20 " E. Humbt. Mts., Nr. Cañon above Camp Valley 7,000 ft. 5 "
i.) " 27, " " " Peak below Stage Pass 8,000 ft. 1 "
j.) Aug. 14, " " " Ridge above Sawmill 9,000 ft. 1 "

42 — Collinsia parviflora, Dougl. (Gr. Mem. 327.) Widely & generally diffused. Stem simple or branching decumbently branched, 3-18' long.

a.) Apr. 15 & 23, 1865. Foothills Mason Canon City — under sage brush. 12 sp.

b.) May 27, " South Trinity Mts, west of Orana, Nev. 5,000 ft. 4 "

c.) June 8 & 9, " W. Humbt Mts., Nev. Canon above Unionville. 8,000 ft. 6 "

d.) " 26, " Mt. Tobin Range, Cumberland Canon 5,000 ft. 4 "

e.) July 20-Aug. 26. E. Humbt Mts., Nev. 6-8,000 ft. 5 "

f.) May 18 & 31, 1869. Near Salt Lake City, Utah. 3 "

g.) June 24, " Farley's Park, Utah. 6,000 ft. 1 "

h.) From Nevada seed, 1869 6 "

58 — Penstemon [illegible] — Nov. [illegible]

(51) [illegible] (Should follow 56)

a.) May 16 & 17, 1865. Trinity Mts., Nev. Southern foot hills. 5,000 ft. 7 sp.

b.) June 8, " W. Humbt Mts, Nev. Canon above Unionville. 6,000 ft. 3 "

c.) " 13, " Dunsten Range, Nev. Foothills of Grays Valley 5,000 ft. 4 "

d.) July 20, " E. Humbt Mts., Nev. Canon above Camp Ruby. 7,000 ft. 2 "

e.) Aug. 26, " " " Canon above Overland Ranch. 6,500 ft. 5 "

43 — P. glaber, Ph. — B. occidentalis. (Gray's Syn. Pentst. — Proc. Am. Acad. A. of S. VI. 59.) Anthers & sterile (11) or the latter very rarely bearded. filament glabrous. Frequent in western Nevada.

a) Sept. 10, 1867. U. Humboldt Mts., Nev. above Unionville 7,000 ft. 3 sp.

a.) May 16, 1865. Trinity Mts., Nev. Southern foot hills 5,000 ft. 1 sp.

b.) " 20, " W. Humbt Mts., Nev. East of Orana " 6 "

c.) June 9, " " " Unionville canon 6,000 ft. 1 "

d.) " 12, " Dunsten Range, Nev. Foothills of Pleasant Valley. 5,000 ft. 6 "

e.) " 18 & 22, " Unionville Valley — foothills " 3 "

d.) " 23, " Dunsten Range, Nev. — Foothills of Grass Valley " 1 "

f.) " 26, " Mt. Tobin Range, Nev. Cumberland canon " 2 "

44 P. glaber, Ph. — var Utahensis. The ~~[illegible]~~ Utah form; anthers & sterile filament bearded; sepals narrower & ~~[illegible]~~ membranaceous; leaves narrow & tapering to the clasping base; taller & of more slender habit. ~~[illegible]~~ flowers smaller, & viscidity entirely absent

July 9, 1865. Diamond Valley, Nev. Grassy alkaline meadow. 6,000 ft. 15 sp.

" 9, 1869. Uintah Mts., Utah. — Packs canon " " 7 "

45 Penstemon glaber, Ph. – var. cyananthus, Gr. (Gr. Syn. Pent. 60.) Also a Utah form; a very distinct variety, if not a good species.

May 17 & 24, 1869. Wahsatch Mts, Utah. City Creek Canon. 5,000 ft. 5 sp.

46 – P. Fremonti, Torr. – (Gr. Syn. Pent. 60.) 1-2° high; anthers glabrous except along the dehiscence; throat somewhat bearded; light blue or pink.

a.) July 6, 1868. Toiyabeh Mts, Nev. Austin Pass. 6,000 ft. 5 sp.

b.) " 10, " Diamond Range, Stage Pass " 4 "

c.) " 19-20, " E. Humboldt Mts, Nev. Canon above Camp Ruby 6,500 ft. 3 "

d.) Aug. 15, " " " Ridge above Sawmill 7,000 ft. 4 "

48 – P. acuminatus, Dougl. (Gr. Syn. Pent. 61.)

May 20, 21, 1868. Humboldt Valley, Nev. Sand hills at Coppers Ferry 4,500 ft. 6 sp.

49 P. centranthifolius, Benth. (Gr. Syn. Pentst. 63.) A hitherto Californian species. Rare corolla occasionally white. Also found in Arizona.

July 11, 1869. Wahsatch Mts., Utah. Provo Canon. 6,000 ft. 8 sp.

53 – P. caespitosus, Nutt. (Gr. Syn. Pent. 66.)

July 29, 1869. Bear River Valley, Utah. Foothills near Evanston. 6,000 ft. 9 sp.

51 – P. cristatus, Nutt. (Gr. Syn. Pent. 67.)

July 9, 1868. Limestone ridge east of Monitor Valley, Utah. 6,000 ft. 2 sp.

52 P. Palmeri, Gr. – [illegible]

a.) May 19, 1868. Trinity Mts, Nev. Canon head, west of Lovelocks – 5,000 ft. 2 sp.

b.) June 15, " Humb.t Mts, Nev. Foothills near Unionville. " " 5 "

c.) July 29, " E. Humboldt Mts., Nev. Foothills at Camp Ruby 4° 6,000 ft. 1 "

53 – P. humilis, Nutt. (Gr. Syn. Pent. 69.)

a.) July 20, 1868. – E. Humb.t Mts, Nev. Canon above Camp Ruby. 8,000 ft. 3 sp.

b.) " 24, " " " Peak above Camp Ruby " " 4 "

c.) " 27, " " " Canon above Ft. Ruby " " 1 "

54 P. humilis, Nutt. var. – [illegible] glaucous; radical leaves ovate, abruptly petioled; cauline, oblong, amplexicaul.

a.) July 14, 1869. Wahsatch Mts, Utah. Above Cottonwood Lake 9,000 ft. 6 sp.

b.) Aug. 19, " " " Fork of Cottonwood canon 8,000 ft. 4 "

54.— P. glaucus, Gray. (Gr. Syn. Pent. 70.) Usually not all glaucous; corolla color of dk dull purple, connecting this with the Mexican species P. campanulatus & P. perfoliatus. In specimens (b.) and (f.), however, the color was a light blue. Lower leaves somewhat repandly dentate.

a.) July 6 + 7, 1869. — Uintah Mts., Utah. Ridge above Duchesne River. 9,000 ft. 11 sp.
b.) " 14, " Wahsatch Mts., Utah. Cottonwood Lake, " " 8 "
c.) " 20, " " " " Peak above Parley's Pass. " " 3 "
d.) Aug. 2 + 3, " Uintah Mts., Ridge above Bear R. cañon 9-10,000 ft 5 "

56.— P. confertus, Dougl., var. B. caruleo-purpureus, Gr. (Gr. Syn. Pent. 72.) 1-2° high.

a.) June 22, 1869. Wahsatch Mts, Utah. Parley's cañon. 6,000 ft. 2 sp.
b.) " 23, " " " Parley's Park. " " 3 "
c.) July 27, " " " Echo Cañon " 3 "

57.— P. confertus, Dougl. — Alpine form of same variety. 6' high.

a.) Aug. 29, 1868. W. Humb't Mts., Nev. Peaks above Overland Ranch. 9,000 ft. 3 sp.
b.) Sept. 9, " Clover Mts., Nev. " 4 "

58.— P. aquaricus, Bentth.? (Gr. Syn. Pent. 75.) [illegible]

July 10, 1869. Wahsatch Mts, Utah. — Provo Cañon. 6,000 ft. 16 sp.

59.— P. aquaricus, Bentth. [illegible] (Gr. Syn. Pent. 75.) [illegible]

a.) July 13, 1869. Wahsatch Mts., Utah. Mouth of Cottonwood Cañon. 5,000 ft. 5 sp.
b.) Aug. 19, " " " Fern fork of Cottonwood cañon 8,000 ft. 2 "
c.) " 25, " " " American Fork cañon 6,000 ft. 3 "

61.— P. [illegible]

a.) June 9, 1868. W. Hum 6t Mts., Nev. — above Unionville. 6,000 ft — 15 sp.
d.) June 24, 1868. Mt. Robin Range, Cumberland cañon 6,000 ft. 15 sp.
c.) July 3, " Toiyabeh Mts, Nev. Reese R. Pass. " 2 "
b.) June 29, " Ridge west of Battle Mt., near Summit Spring. " 1 "
d.) July 5, " Monitor Valley. Foot hills near Roberts Station. " 5 "
e.) June 24, 1869. Wahsatch Mts, Utah. Ridge above Parley's Park. " 2 "
f.) July 4, " Uintah Mts, " Packs cañon 7,000 ft. 1 "

— Mimulus Lewisii, Pk. (DC. Prod. X. 370.) Tall, 1-3° high; along cold mountain streams; with a musky odor.

a.) Aug. 26-31, 1868. E. Humb't. Mts., Nev. Cañon above Overland Ranch. 7,000 ft. 9 sp.

b.) July 13, 1869. Wahsatch Mts. Utah. Fem fork of Cottonwood cañon. " 5 "

c.) Aug.), " Uintah Mts., " Bear River Cañon. 5,000 ft. 7 "

— M. luteus, L. (DC. Prod. X. 370.) Variable; 3'-4° high; corolla ¼-1¼' in length; somewhat stoloniferous. It probably includes M. glaberatus Hook of which, again, M. Jamesii, Torr. is but a still smaller flowered form, as has been indicated by Dr. Gray. Very frequent.

a.) July 16, 1867. Truckee River Bottom, Nev. near Glendale. (W. W. Bailey.) 4 sp.

b.) " 26 - Sept. 20, 1867. Truckee Bottom, Soda Lake, & Unionville Cañon, 11 "

c.) June 6-21, 1868. — W. Humb't. Mts, Nev. Unionville cañon & valley 5,000 ft. 8 "

d.) July 11, " Ruby Valley, Nev. 6,000 ft. 1 "

e.) May 21, 1869. Wahsatch Mts, Utah. City Creek Cañon 5,000 ft. 2 "

M. luteus, L. with smaller flowers. Var. glaberrimus ...,

a.) Sept. 1867. W. Humb't. Mts. Nev. Unionville cañon. 6,000 ft. 4 sp.

b.) June 10, 1868. — " " Falls Cañon S. of Unionville 5,500 ft. 2 "

c.) " 27, " Mt. Tobin Range, Nev. Cumberland cañon. " 1 "

d.) July 10, " East foot of Cumberland Mts., Nev. 3 "

M. luteus, L., var. alpinus, Gr. — Proc. Ac. Nat. Sci. Phil. 1863, p. 71.)

Aug. 29, 1868. E. Humb't Mts, Nev. Cañon above Overland Ranch. 9,000 ft 6 sp.

— M. primuloides, Benth. (DC. Prod. X. 372.)

Aug. 27, 1868. E. Humb't. Mts. Nev. Cañon above Overland Ranch. 7,000 ft. 9 sp.

— M. floribundus, Dougl. — (DC. Prod. X. 372.)

a.) July 16, 1867. Truckee River Bottom, Glendale. (W. W. Bailey.) 4,500 ft. 25 sp.

b.) " 26, " " " at the Big Bend. 4,500 ft. 11 "

c.) Sept. 24, 1868. E. Humb't. Mts, Nev. Near Hunneman's Ranch. 6,000 ft. 6 "

d.) July 13, 1869. Wahsatch Mts, Utah. Cottonwood cañon 5,000 ft. 4 "

M. moschatus, Dougl. (DC. Prod. X. 372.) Prostrate or suberect.

~~June~~, 26, 1868. — E. Humb't. Mts. Nev. Cañon above Overland Ranch. 7,000 ft 10 sp.

June 30, 1869. Wahsatch Mts., Utah. Cañon above Parley's Park. " " 15 "

July 14, " " " Cottonwood cañon 5,500 ft. 7 "

Mimulus rubellus, Gr. (Rep. Mex. Bound. S. 116.) Flowers occasionally pink; with the throat generally veined or dotted with purple.
more usually yellow; 1/4'-3' high, simple or much branched.

a.) July 16, 1867. Truckee River bottoms, near Glendale. (W. W. Bailey.) Pink. 15 sp.
b.) Apr. 21-29, 1864. Hillsides near Carson City, Nev. 5-6,000 ft. 20 "
c.) July 24, " E. Humboldt Mts., Nev. Canon above Camp Ruby. 7,000 ft 6 "
d.) Sept. 12, " Clover Mts, Nev. Under Hoffe Peak. 10,000 ft. 5 "
e.) June 7, 1869. Antelope Island, Salt Lake. 6 "
f.) " 24-29, " Wahsatch Mts., Utah. Above Parley's Park. 6-7,000 ft 11 "

M. rubellus, Gr., var. *latiflorus*. Limb enlarged & throat sprinkled with purple spots, bearded; viscidly pubescent. The same as *M. montividus*, Gr. — perhaps distinct.

Apr. 21, 1864. Carson Valley, near Carson City — under sage brush. 25 sp.

Eunanus tremontii, Dc. — (Dc. Prod. X. 374.) Varying greatly in size; early specimens with a single flower, the length of which often exceed that of the stems, while later in the season it may be 6 or more in height, more or less branched, & with numerous flowers; Either deep purple or yellow, throat usually bearded; viscidly pubescent or villous; calyx equally or exceeding the calyx, narrow. Probably includes *E. Tolmiei*, Dc. 5 p dozen.

a.) Apr. 23, 1864. Carson Valley, near Carson City — under sage brush. 205 p.
b.) May 13+27, " Trinity Mts, foot hills. 20 "
c.) June 12, " Sonyhon Range, above Pleasant Valley 5,000 ft. 17 "
d.) " 22, " " " Spalding's canon " 4 "
e.) July 6, " Toiyabeh Mts, Nev. Above Austin 6,000 ft. 1 "

Herpestis fistulosa, Benth. ? — (Dc. Prod. X. 394.)

a.) July 16, 1867. Truckee Meadows, at Glendale, (W. W. Bailey.) 4 sp.
b.) " 24, " Truckee River bottoms, at the Big Bend. 9 "

Gratiola Virginiana, L. ? (Gr. Man. 330.)

July 17, 1867. Truckee Meadows, at Glendale. (W. W. Bailey.) 3 sp.

Limosella aquatica, L. — (Dc. Prod. X. 426.) Petioles sometimes much elongated, 2-4'.

a.) Sept. 29 + 30, 1864. Green Creek Valley, Utah. 6,000 ft 115 sp.
b.) July 20+22, 1869. Parley's Park, Utah. " 6 "
c.) " 3, " Silver [illegible], Wahsatch Mts, Utah. " 10 "

~~74~~ Limosella aquatica, L., var. tenuifolia, Hoffm. — (Gr. Man. 331.)

July 3, 1869. Uintah Mts, Utah. Silver Creek cañon. 6,500 ft. 10 sh.

~~75~~ Synthyris pinnatifida

Aug. 26, 1869. — Wahsatch Mts, Utah. — Head of Amer. Fork cañon. 9,000 ft. 125 sh.

76 — Veronica Anagallis, L. — (Gr. Man. 332.)

a.) Sept. 25 + 26, 1868. — Thousand Spring Valley, Nev. — 10 sh.

b.) May 31, 1869. Jordan Valley, near Salt Lake City 2 "

c.) Aug. 16, " Weber Valley, near Coalville, Utah. 1 "

77 — V. Americana, Schw. — (Gr. Man. 332.) more common than the last; flowers deeper blue.

a) Oct. 1867. W. Humb.t Mts, Nev. Unionville cañon, (W. W. Bailey!) 5,000 ft. 25 sh.

b.) June 5, 1868. — Same locality. 10 sh.

c.) July 6, " Toiyabe Mts., Nev. above Austin 6,000 ft. 5 "

d.) " 11, " (var.) " Ruby Valley, Nev. " 3 "

e.) Sept. 25 " Thousand Spring Valley, Nev. " 6 "

f.) May 17, 1869. City Creek cañon, Utah. 5,000 ft. 2 "

g.) June 22, " Parley's Park, " 6,000 ft. 3 "

h.) Aug.), " Uintah Mts., Utah. Bear R. cañon 8,000 ft. 2 "

i.) " 16, " Weber Valley, " near Coalville 1 "

78 — V. alpina, L. — (Gr. Man. 332.)

a.) Aug. 27, 1868. E. Humb.t Mts., Lake shore above Overland Ranch, 9,000 ft. 13 sh.

b.) Sept. 10, " Clover Mts., Nev. Under North Peak. " " 3 "

c.) July 14, 1869. Wahsatch Mts., Utah. Cottonwood Lakes. " " 5 "

d.) " 31 & Aug. 2, " Uintah Mts., " Bear River cañon 8-9,000 ft.) "

79 — V. serpyllifolia, L. — (Gr. Man. 333.) Only subalpine.

a.) July 13, 1869. Wahsatch Mts, Utah. Main fork of Cottonwood cañon. 8,000 ft. 65 sh.

b.) " 14, " " " Cottonwood Lakes 9,000 ft 4 "

c.) Aug. 20, " Uintah Mts, " Ridge above Bear R. cañon 8,000 ft. 9 "

81.- Veronica peregrina, L.- (Gr. Man. 333.)

a.) July 26, 1867. Truckee River Bottom, at the Big Bend. 4,500 ft. 11 sp.
b.) " 10, 1868. Diamond Valley, Nev. 6,000 ft. 3 "
c.) Aug. 1, " Ruby Valley, Nev. " 3 "
d.) " 26, " E. Humboldt Mts., Nev. Canon above Overland Ranch. 6,500 ft. 2 "
e.) Sept. 30, " Goose Creek valley, Utah. 6,000 ft. 1 "
f.) May 31 & June 3, 1869.- Jordan Valley, near Salt Lake City. 4,500 ft. 2 "
g.) June 23, " Parley's Park, Utah. 6,000 ft. 2 "
h.) Aug. 16, " Weber Valley, Utah 5,500 ft. 1 "

82.- Castilleia linariaefolia, Benth.- (Gr.- Sill. Jour. XXXIV. 335.) Quite variable; the galea from scarcely exsert to one inch or more in length; the pubescence confined to the summit or covering the whole plants; the leaves 1-3 nerved, entire or lobed, usually narrow, occasionally 3-4" broad. A mountain species.

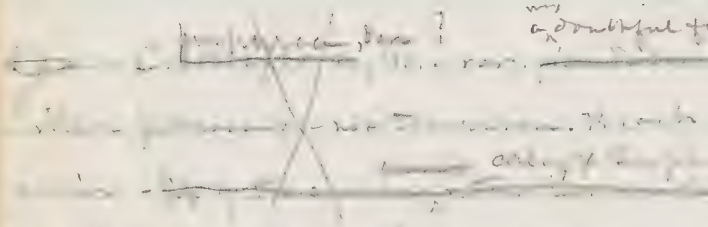
a.) July 31, 1867. E. Truckee Mts., Nev. Canon above Valley Wells. 6,000 ft. 5 sp.
b.) Sept. 10, " W. Humboldt Mts., Nev. Wrights' canon 7,000 ft. 2 "
c.) July 3, 1868. Toiyabeh Mts., Nev. Silver Creek Canon 6,000 ft. 4 "
d.) " 20, " E. Humboldt Mts., Nev. Canon above Ramp Ruby 7-8,000 ft. 8 "
" 30, " " " Ridge above Sawmill. 8,000 ft. 3 "
e.) Sept. 2, " " " Canon above Overland Ranch. 6,500 ft. 3 "
f.) June 24-21, 1869. Wahsatch Mts, Utah. Ridge above Parley's Park " " 5 "
g.) July 27, " " " Echo Canon " " 2 "

83.- C. affinis, Hook.- (Gr. Rev. Castil. l.c. 336.) Leaves long. acuminate, 2-8" in width; confined to meadows & streambanks.

a.) July 26, 1867.- Truckee River Bottom, at Big Bend, Nev. 8 sp.
b.) " 29, " Same locality - (W. W. Bailey.) 12 "
c.) " 28 & Aug. 1, 3, 1868.- Ruby Valley, Nev. 6,000 ft. 7 "
d.) Sept. 2, " E. Humboldt Mts., Nev. Streambank above Hammond's,- 6,500 ft. 1 "

84.- C. pannifloraa, Bong. (Gr. Rev. Castil. 336.) Very common mountain species, 6-12" high, colors ranging from yellow to deep purple.

a.) April 23, 1868.- Washoe Mts. Nev. above Carson City. 6-7,000 ft. 5 sp.
b.) May 12-27, " Truckee & Trinity Mts, Nev. 5-6,000 ft. 10 "
c.) June 6, " W. Humboldt Mts.- Above Unionville 7,000 ft. 4 "
d.) " 25, " Mt. Robinson Range. Above Cumberland. 8,000 ft. 2 "
e.) July 6, " Toiyabeh Mts.- Above Austin 6,000 ft. 1 "



f.] July 20, 1866. E. Humb[t]. Mts., Nev. Canon above Camp of Ruby 7,1000 ft. 1 sp.

g.] " 27, " " " Peak below Stage Pass. 8,000 ft. 1 "

h.] Aug. 18, " " " " Peak above Sawmill, green - 9,000 ft. 1 "

" 28, " " " " above Overland Ranch 10,000 ft.

i.] May 18, 1869. Wahsatch Mts, Utah. Ridge above Salt Lake City. 5,0000 ft. 1 "

j.] June 3, " Antelope Island, Salt Lake. " 1 "

k.] " 30, " Ridge above Parley's Park. 7,000 ft. 3 "

84 - Castilleia pallida, Kth. (Gr. Rev. Castil. 33).)

a.] July 3, 1869. Uintah Mts, Utah. Canon near Kamas Prairie, 6,000 ft. 2 sp.

b.] " 20, " Wahsatch Mts, " Above Parley's Pass. 8,000 ft. 1 "

c.] Aug. 12, " Uintah Mts., " Ridge above Bear R. canon 10,0000 ft. 3 "

~~85 C. pallida, Kth., var miniata, Gr.~~ ~~the much more common form, especially in Nevada.~~

~~a.] July 29, 1869. Truckee River Bottom, at Big Bend. (W. W. Bailey.)~~ ~~1 sp.~~

Ob.] Sept. 10, " W. Humb[t]. Mts., Nev. Unionville canon 1 "

b.] June 26, 1866. - Mt. Robin Range, Nev. Cumberland canon 1 "

c.] July 24, ~~Aug. 6.~~ " E. Humb[t]. Mts., Nev. Canons above Camp of Ruby 7,000 ft. 2 "

d.] " 27, " " " " Divide above Ft. Ruby 8,000 ft. 3 "

e.] June 25+30, 1869. Wahsatch Mts., Utah. Ridges above Parley's Park. 7,0000 ft. 4 "

85 [illegible]

a.] [illegible]

a.] July 30, 1866. E. Humb[t]. Mts., Nev. Ridge above Sawmill - green. 9,000 ft. 7 sp.

b.] Aug. 28, " " " Peak above Overland Ranch. 10,000 ft. 1 "

c.] Sept. 3, " " " Canon above Hinneman's, 9,0000 ft. 3 "

d.] " 7, " Clover Mts., Nev. South Peak. 9,000 ft. 2 "

e.] July 28+30, 1869. Near Evanston, Utah. Uintah Mts, Utah. Bear R. Valley 7,000 ft. 9 "

9 - Cordylanthus [illegible]

Sept. 8, 1866. - Clover Mts., Nev. Ridge above Scenic valley. 6,500 ft. 4 sp.

6.– Cordylanthus ramosus, Nutt. [illegible]

through the character of the small [illegible]

[illegible]

July 5, 1866.	Monitor valley, Nev. – foothills –	6,000 ft.	5 sp.
" 27+28, "	Ruby Valley, Nev. "	"	5 "
Aug. 14, "	E. Humbt. Mts., Nev. Ridge above Sawmill	9,000 ft.	3 "
July 17+26, 1869.	Parley's Park, Utah. Foothills	6,000 ft.	2 "
" 27, "	Echo Canon, Utah.	"	1 "

21.– C. [illegible]

July 9, 1866.– Ridge near Roberts' Station, Monitor Valley, Nev. 6,000 ft. 4 sp.

7.– Orthocarpus luteus, Nutt.– (DC. Prod. X. 536.)

a.) July 25, 1866.	Ruby Valley, Nev.	6,000 ft.	05 sp.
b.) Sept. 1, "	" "	"	3 "

[illegible]

a.) June 24+29, & July 21, 1869. Parley's Park, Utah – Foothills – 6,500 ft. – 15 sp.

b.) July 14, "	Wahsatch Mts., "	Above Cottonwood Lake –	9,000 ft.	2 "
c.) " 27, "	" "	Echo Canon	6,000 ft.	1 "
d.) Aug. 14, "	" "	Lake shore, above Parley's Park. –	9,000 ft.	1 "

1.– Pedicularis Groenlandica, Retz.– (DC. Pr. X. 500.) In the border of mountain lakes. + streams

b.) Aug. 27, 1866.	E. Humbt. Mts., Nev.	Lake above Overland Ranch.	9,000 ft.	4 sp.
a.) " 25, "	" "	Poplar Creek canon	7,000 ft.	5 "
c.) July 14, 1869.	Wahsatch Mts., Utah.	Cottonwood Lake	9,000 ft.	7 "
d.) " 31, "	Uintah Mts., "	Bear River canon	8,000 ft.	4 "
e.) Aug. 4, "	" "	Lake at head of [illegible]	9,000 ft.	1 "

P. racemosa, Dougl.– (DC. Pr. X. 540.) Frequent among the Uintahs in the shade of pines. Damp

a.) July 14, 1869.–	Wahsatch Mts. Utah.–	Cottonwood Lake	9,000 ft.	15 sp.
b.) Aug. 2, "	Uintah Mts., "	Bear River canon	8-9,000 ft.	10 "

94 Pedicularis bracteosa, Benth. (DC. Pr. x. 574.)

a.) July 6, 1869. Uintah Mts., Utah. Ridge above Duchesne River. 9,000 ft. 35 sp.

b.) Aug. 2 & 3, " " " Bear River Canon, 8,000 ft. 8 "

Verbenaceæ.

95 – Verbena hastata, L. – (Gr. Man. 340.)

July 12, 1869. Salt Lake Valley. About cultivated fields. 1 sp.

b – V. bracteosa, Mx. – (Gr. Man. 340.)

May 29 & June 21, 1869. Foothills about Salt Lake City. 7 sp.

Labiatæ.

97 – Mentha Canadensis, L. (Gr. Man. 303.)

a.) July 16, 1869. Truckee Valley, near Glendale, Nev. (W. W. Bailey.) 6 sp.

b.) " 26, " " " at Big Bend. 4 "

c.) " 1, 1869. Humboldt Valley, Nev. Mouth of Reese River 3 "

d.) " 25, [illegible] sp. " Ruby Valley, Nev. 6,000 ft. 4 "

e.) " 9, 1869. Uintah Mts., Utah. Provo Canon 7,000 ft. 1 "

98 – Lycopus Europæus, L., var. sinuatus, Gray. – (Gr. Man. 304.)

Aug. 25, 1869. Wahsatch Mts., Utah. American Fork Canon. 6,000 ft. 6 sp.

99 – Monardella odoratissima, Benth. – (DC. x 11. 190.)

a.) Sept. 19, 1869. W. Humboldt Mts., Nev. Star Peak. 8,000 ft. 105 sp.

b.) July 29, 1869. E. Humboldt Mts., Nev. Peak above Ft. Ruby. 8,000 ft. 5 "

c.) Aug. 4, " " " " below Stage Pass. 8 " 3 "

d.) July 13, 1869. Wahsatch Mts., Utah. Fern fork of Cottonwood Canon 8,000 ft. 4 "

100 – ~~Micromeria~~ Satureia hortensis

a.) Sept. 10, 1869. W. Humboldt Mts., Nev. Streambank in Unionville. 5 sp.

b.) Oct. " Same locality. (W. W. Bailey.) 4 "

101.– Salvia Columbariae, Brewtr. (DC. Prod. XII. 349.) Rare.

a.) Nov. 24, 1867. Truckee Pass, roadside. 2 s/.

b.) May 11, 1867. " " Rocky foot hills. 5 "

102.– Audibertia incana, Brewtr. – DC. XII. 357, [illegible] very slender, slightly larger than the very narrow [illegible].

a.) July 30, 1867. Border of Carson Desert – Valley Wells Station. 1 s/.

b.) Aug. 5, " W. Humbt. Mts., Nev. Wright's cañon (W. W. Bailey) 1 "

c.) May 13, 1868. Truckee Pass, Nev. Mountain side 5,500 ft. 1 "

d.) " 23, " W. Humbt. Mts., Nev. East of Oreana. " 3 "

e.) July 7, " Mountain Valley, Nev. Dry streambed. " 5 "

103.– Lophanthus [illegible] very abundant in moist mountain cañons, especially in Nevada.

a.) Sept. 6, 1867. W. Humbt. Mts., Nev. Star Peak 9,000 ft. 6 s/.

b.) July 27, 1868, Mt. Tobin Range, Nev. Cumberland Cañon 6,000 ft. 4 "

c.) July 6, " Toiyabeh Range – above Austin " " 2 "

d.) " 24, " E. Humbt. Mts., Nev. above Camp Ruby 7,000 ft. 3 "

e.) " 3, 1869. Uintah Mts., Utah. above Kamas Prairie 6,000 ft. 1 "

104.– Nepeta Cataria, L. (Gr. Man. 311.) Introduced.

July 13, 1869. Wahsatch Mts., Utah. Cottonwood cañon 2 s/.

105.– Dracocephalum parviflorum, Nutt. (Gr. Man. 312.) Frequent in the Wahsatch Mts.

a.) May 27, 1869. City creek cañon. 5,000 ft. 6 s/.

b.) June 22, " Parley's cañon 6,000 " 1 "

c.) " 30, " Cañon above Parley's Park 6,500 ft. 2 "

d.) July 22, " Silver creek cañon 6,000 ft 1 "

106.– Brunella vulgaris, L.– (Gr. Man. 313.)

a.) Sept. 4, 1868. E. Humbt. Mts., Nev. Foothills of Ruby Valley– 6,000 ft. 5 s/.

b.) July 6, 1869. Uintah Mts., Utah. Peak's cañon 7,000 ft. 1 "

c.) " 17, " Wahsatch Mts, " East creek cañon 6,000 ft. 3 "

d.) Aug. 13, " Uintah Mts, " Bear River cañon – meadow. 7,000 ft. 5 "

107.— Scutellaria resinosa, Torr. (Dc. Prod. XII. 427.)

a.) Oct. 10, 1867. W. Humbt. Mts., Nr. Unionville canon. 5,000 ft. 4 sh.
b.) " " Same locality. (W. W. Bailey.) " 1 "
c.) June 8, 1868. W. Humbt. Mts., Unionville & Woody Canon. " 6 "
d.) " 24-27, " Mt. Robin Range, Nr. Cumberland canon " 6 "

108.— S. galericulata, L. (Gr. Man. 315.)

a.) July 9, 1869. Wahsatch Mts, Utah. Provo canon - river bank. 5,000 ft. 8 sh.
b.) " 22-26, " " " Silver Creek canon 6,000 ft. 11 "

109.— Marrubium vulgare, L.— (Gr. Man. 315.) Introduced.

July 13, 1869. Wahsatch Mts., Utah. Cottonwood canon. 5,000 ft. 3 sh.

110.— Stachys palustris, L. (Gr. Man. 316.)

a.) July 27, 1867. Truckee Valley, at Big Bend. 1 sh.
b.) " 29-aug. 17, " Same locality. (W. W. Bailey.) 6 "
c.) " 24, 1868 + Sept. 1, " Ruby Valley, Nv. 6,000 ft. 11 "
d.) July 9, 1869. Provo Valley, Utah. near Heber City " 3 "
e.) Aug. 16, " Weber Valley, " " Coalville " 2 "

Borraginaceae.

111.— Lithospermum [illegible] — Hk. Fl. [illegible] L.) [illegible]

[illegible] multiflorum, Torr. Mss. in Herb., = 627 Fremd L. + 1562 W., also 1142 Fremont. July 20' 1843

a.) May 4, 1868. Valley near Carson City - Sage brush. 5,000 ft. 12 sh.
b.) June 8, " W. Humbt. Mts., Nr. Unionville canon. 5,000 ft. 9 "
c.) July 6, " Toiyabeh Mts., " above Austin 6,000 ft. 2 "
d.) " 20-25, " E. Humbt. Mts., " Lower canons 6,500 ft. 6 "
e.) May 17, 1869. Wahsatch Mts., Utah. City creek canon 5,000 ft. 1 "
f.) June 24, " " " Canon above Parley's Park 6,000 ft. 1 "

111.— L. longiflorum, Spreng.— (Gr. Man. 363.) Rare.

May 15, 1869. Foothills near Salt Lake City 5,000 ft. 25 sh.

115 Mertensia Sibirica, Don. (Gray Revis. Mertens. - Am. Jour. Sci. XXXIV. 340.) Mostly confined to banks of mountain streams. Variable; 6'-5° high; leaves ovate to narrow lanceolate, attenuated or broad at base, from one to three inches wide; calyx lobes usually short (1") & obtuse, occasionally linear lanceolate & twice longer; leaves glaborous beneath, variable in degree of pubescence above, lowest ~~of the~~ broad ovate, abruptly decurrent into a long petiole. St.

a.) June 9, 1866. W. Humboldt Mts, Nev. Unionville cañon 9,000 ft. 7 sp.
b.) " 30, " Battle Mt., Nev. West cañon. 6,000 ft. 1 "
c.) July 6, " Toiyabeh Mts, Nev. Above Austin 7,000 ft. 5 "
d.) Aug. 26-27, " E. Humb't Mts, Nev. Cañons above Buckland's Ranch. " " 8 "
e.) May 29, 1869. Wahsatch Mts, Utah. City Creek cañon 5,000 ft. 2 "
f.) June 24-30, " " " Cañons above Parley's Park. 6,500 ft. 3 "
g.) July 5, " Uintah Mts, Utah. Provo Cañon. 7,000 ft. 2 "
h.) Aug. 19, " Wahsatch Mts, " Fork of Cottonwood cañon " 5 "

117 M. ~~spathulata~~, Don.? (Gray's Revis. Mertens. 340) A dwarf alpine form 6' high, more or less hirsutely pubescent throughout.

a.) Aug. 4, 1869. Uintah Mts, Utah. Divide at head of Bear River. 11,000 ft. 3 sp.
b.) " 10, " " " Peak above Bear River Cañon 12,000 ft. 13 "

113 M. alpina, Don. (Gray's Revis. 340.) Apparently the M. Drummondii, Don., nearly but leaves more or less pubescent or hispid above, ~~everywhere~~ glaborous throughout; 6' high; growing on damp mountain slopes; frequent in Nevada, flowering in early spring. The taller & rather more hispid specimens are scarcely distinguishable, but by the general slenderness of the whole from the smaller forms of M. Sibirica.

a.) April 29, 1866. Mt. Davidson, Nev. 7,000 ft. 25 sp.
b.) May 27, " Trinity Mts. " W. of Orana. " 6 "
c.) June 18-19 " W. Humb't Mts, " Above Unionville 7,500 ft. 7 "
d.) July 20, " E. Humb't Mts, " Cañon above Camp Ruby 7,000 ft. 6 "
e.) " 27, " " " Peak above Ft. Ruby 9,000 ft. 2 "

118 M. alpina, Don. (Gray's Revis. Mertens. 340. Hook. Fl.)

a.) May 17, 1869. Wahsatch Mts, Utah. City creek cañon 5,000 ft. 7 sp.
b.) July 6, " Uintah Mts, " Provo cañon 7,000 ft. 8 "

119. Amsinckia lycopsoides, Lehm.— (DC. Prod. X. 117.) The specimens are so exceedingly variable in habit, foliage, position of the stamens & other characters of the flower, that it becomes impossible to include in this species both A. Menziesii, Lehm. & Gal., and A. intermedia, Fisch. & Mey., & perhaps also A. spectabilis, Fisch. & Mey.,— as has already been suggested by both Dr. Torrey & Dr. Gray.

a.) Apr. 22–May 2, 1866. Foothills near Carson City, Nev. 4,000 ft. 27 sp.
b.) June 3, " W. Humboldt Mts., Nev.— Foot-hills " 2 "
c.) July 10, " Diamond Mts., " Stage Pass. 6,000 ft. 8 "
d.) " 20, " E. Humboldt Mts., " Canon above Camp Ruby, 6,500 ft. 1 "
e.) May 18 & 24, 1869. Foothills near Salt Lake City 3 "
f.) June 3, " Antelope Island, Salt Lake. 1 "
g.) " 12, " Stansbury's Island, " 1 "

120 tig.— Piptocalyx circumscissus, Torr. (Lithospermum ?, H. & A.— Bot. Beech. I. 370.)

June 12, 1866. Pinyon range, [illegible] 5,000 ft. 15 sp.
" 6, 1869. Antelope Island, Salt Lake.— Shore 3 "

121.— P. [illegible] Not in Herb. Gr.—

Probably only young state

Apr. 22 & May 2, 1866. Foothills near Carson City. 18 sp.

122. Eritrichium Californicum, DC.

a.) July 15, 1867. Truckee Meadows, at Glendale. (WWB.) 4,500 ft. 35 sp.
b.) " 27, " " Valley of the Big Meadows " 8 "
c.) Apr. 23, 1866. Salt-meadow, north of Carson, " " 12 "
d.) May 9 " Wet alkali meadow S. of Glendale " " 1 "
e.) " 14 " Alkali flat near Rickeys " " 1 "
f.) June 12 " Swampy ground in Pleasant Valley 5,000 " 1 "
g.) " 30 " Battle Mt. Swampy spot in high canon 7,000 ft. 11 "
h.) July 3 " Reese river pass of the Shoshone Mts, near Crispin's 5,000 " 5 "
i.) " 6 " Toiyabe Mts, camp in pass E. of Austin 6,000 " 1 "

None of the specimens in Herb. Torrey have fruit. Frankly specimens that seem to be the same as above in Mt. S. [illegible] (Plagiobothrys, Hitchc.) — but one of Gould's which is mine exactly, from Englemann — the fruit broadly ovate into an abruptly broad [illegible] back, somewhat tuberculate-crustate and also tuberculate [illegible]

[illegible]

— Nothing of this in Herb. Gray, nor in Herb. Torrey, though [illegible]

j.) July 27, 1866. E. Humb. Mts. Sink in Rock above Ft. Ruby. 8,500 feet. 10 sp.

k.) Sept. 12 " Clover Mts. - Head of Canon 9,500 feet. 5 "

l.) " 30 " Goose Creek Valley, mont. 6,000 " 2 "

m.) June 3, 1869. Mouth of Jordan. 4,300 " 2 "

3. E. flavescens, Rowe.

April 22 + May 2. - Sandy foothills near Carson 19 sp.

a.) May, 13, 1866. - Foothills near Clarks. in Truckee Pass. 15 sp.

b.) " 14, " Sandy sage plains E. of Ricketts 1 "

c.) " 15 " Rocky ridge of Station 14 3 "

d.) " 16, " Trinity Mts, near Eagle Crag. 2 "

e.) June 12, 1869. Stansbury Island - shore 1 "

122. - E. villosum, var. arctivicks,

a.) Aug. 3, 1869. - Wintah Mts. - above Bear River Canon 12000. - 15 sp.

b.) " 10, " " " " Peak W. of Camp " 1 "

20. E. ~~depauperatifolium~~, Rowe

a.) May 14, 1866. Sandy Sage plains E. of Ricketts 4,500 ft. 65 sp.

b.) " 15 " Rocky ridge of Station 14 - Trinity Mts 5,000 ft. 2 "

c.) " 16 " Dry foothills near Eagle Crag " " 1 "

d.) " 20 " Lower Canon E. of Carson Sink 4,500 " 1 "

e.) June 10 " Foothills near Unionville 5,000 " 1 "

f.) May 27, 1869 - City creek canon " " 2 "

g.) June. 11, " Rabbit Island 4,300 " 1 "

124. E. ~~laxiflorum~~ fulvum, Rydb. Proc. 10., 132

April 23, 1866. Foothills North of Carson City 15 sp.

~~3~~. 2. microcephalum

a.) June 15, 1869. - ~~Carrington Island~~ Stansbury Island 5 sp.

15 29 " Carrington Island - rather doubtful 4 "

b.) July 22 " - Rocky hillside in Silver creek canon 3 "

2. E. ~~hirsutum~~

May 11, 1866. In Truckee Pass, or near Glendale. 65 sp.

" 13 " " " Rocky hillside near Clarks 2 "

" 15 " Rocky ridge of station 14, Trinity Mts. 1 "

" 16 " Eagle Crag 1 "

125. E. glomeratum

a.) July 4, 1869. Limestone ridge - Parks Canon 3 sp.

b.) " 29 " Ridge in Bear river valley, near Evanston. 2 "

126. E. fulvopannosum, Vasey - [illegible] 1, [illegible]

a.) May 16, 1866. Canon trib. to Eagle crag. 5,000 ft 5 sp.

b.) " 23, " " " E. of Oreana 5,000 ft. 1 "

c.) June 13, " Ruby Pass, Humboldt range, stand 5,000 feet 2 "

d.) July 6, " Monitor valley, dry gravelly & clayey knoll, in dense clumps, 6 to 8 ft. 3 "

e.) " 24 " E. Humboldt Mts., driest & heads of canon above Camp 8,000 ft. 2 "

f.) " 27 " " " Peak above Ft. Ruby 9,000 feet 2 "

g.) Sept. 10, " North Clover Peak 10,000 ft. 6 "

h. May 17, 1869 Canon above Camp Douglas 5,000 feet 3 "

127. E. ~~magnificum~~ Leconte

v.s. inf. a) June 10, 1866. Foothills near Winnemucca, Nev. 5,000 ft. 15 sp.

b.) July 20, 1866. E. Humboldt Mts., Under Juniperus above Camp Ruby 7,000 feet. 25 sp.

c.) Aug. 26 " " " Canon above Overland ranch, shady woodside 1 "

~~d.) June 15, 1869. Coming into Deloud, Sides Lake~~

e.) July 22 " Rocky hillside in Silver Creek canon 6,000 3 "

June 17, 1866. Foothills near Winnemucca 3 "

~~Very nicely - Leconteanum, Vasey~~

a.) Apr. 24 & May 21, 1866 Sandy foothills N. of Carson 12 sp.

b.) May 21, 1866 " " Below Carson 7 "

c.) " 12, " Rocky foothills near Pinkney 7 "

d.) " 16 " Trinity Mts., Rocky hillside near Dutch Canon 6 "

128. Echinocereus triglochidiatus, Engelm.

~~a.) July 29, 1869. Truckee bottom at Big Bend. (Gold Bluff.)~~ ~~1 sp.~~

b.) June 29, 1866. Mt. Tobin Range - Cumberland canon 4 "

c.) " 30, " Battle Mt. high canon & shaded stream bank 7,000 feet. 4 "

d.) July 10, " Diamond Range - Dry run 7,000 feet 5 "

e.) " 20 " E. Humboldt Mts. - Canon above Camp Ruby Here & white 6,500 - 7,000 6 "

f.) Aug. 1. " " Carson Creek bank. - shaded - light blue 6,000 3 "

g.) May 17, 1869 Walcott - Canon above Ft. Douglas 5,000 6 "

h.) May 27, 1869 – Walkabout – City Creek canon. 5,000 ft. 2 s/.

i.) June 22, " " " Parley's canon " 1 "

j.) " 26 " " " canon above Parley's Park 6,000 " 1 "

k.) July 10, " " " Provo canon, n. fork " " 1 "

l.) " 20, " " " Summit W. of Parley's Park 8,000 ft. 1 "

E. fatalense, ?

a.) July 27, 1869, Big Bend of Truckee (W.W.B.) 2 s/.

" 29 " " " " 4 "

vor. stricta b.) May 15, 1869. Trinity Mts. – Foothills n. of Station 12 15 "

c.) " 21, " Sage plain above Carson Ferry 5 "

" 23 " near summit E. of Truckee 7,000 ft 2 "

d.) " 27, " Trinity Mts. – Hillside near Camp 6,000 ft 12 "

e.) June ~~23~~, 1869 W. Humb.t Mts. – hillside of h. Upper canon, above Winnemucca 7,000 ft 1 "

f.) " 12 " Swampy ground in Thousand Valley 5,000 ft. 1 "

g.) " 23 " Dunglum Range – dry foothill in Spalding Pass " 1 "

h.) July 3, " Shoshone Range – Silver Creek Canon – dry wash " 5 "

i.) " 24, " E. Humb.t Mts. divide above Camp Ruby 8,000 ft 3 "

j.) May 17, 1869. Walkabout – Canon back of Camp Douglas 1 "

k.) " 18, " " Spur north of city 2 "

l.) " 31, " Jordan flats near City 1 "

m.) June 11, " Rabbit Island 2 "

n.) " 12 " Stansbury Island 1 "

Helianthopsis Covasanicum, 2.

a.) July 16, 1869. Truckee bottom; at Glendale (W.W.B.) 6 s/.

b.) Aug. 6, " Humboldt Slough. 1 "

c.) July 1, 1869 Humboldt valley, north of Ruby 2 "

d.) May 31, 1869 Bank of Jordan, near City 5 "

Calendula Nuttallii,

a.) July 26, 1869. – Truckee Desert, near Big Bend, (W.W.B.) 1 s/.

b.) Aug. 4, " Carson Desert, Buck's Station 1 "

c.) June 22, 1869 – Unionville valley. 3 "

May 17. 1866

" 22. "

" 29. "

Hydrophyllaceae

Hydrophyllum

RD
100